25 Cents

January 1951

Vol. 78 • No. 1

THE LUMBERMAN

Since 1889

SEATTLE-PORTLAND
SAN FRANCISCO-NEW ORLEANS
VANCOUVER, B.C.-NEW YORK
CHICAGO-LOS ANGELES

Editorial Index page 47

The Production Journal of the Forest Industries

...BY WRAPPING THE YARDER DRUM WITH *PREFORMED* YELLOW STRAND

The first day of skidding or loading logs with *Preformed* Yellow Strand demonstrates its smooth spooling. As shock loads and severe bends put the line to the test, its resistance to wear earns real respect. But the clincher comes when the board-foot record proves the low final cost. To get this long-lived service on hoists and winches, order 6 x 19 *Preformed* Yellow Strand with independent wire rope core. And for similar savings at the mill, wrap the carriage, too, with appropriate *Preformed* Yellow Strand.

Broderick & Bascom Rope Co., St. Louis 15, Mo.

Factories: **SEATTLE, St. Louis, Peoria, Houston**

Branches: **SEATTLE, Portland, San Francisco, Los Angeles, Houston, Chicago, New York**

Distributors in All Logging Areas

BRODERICK & BASCOM
Yellow Strand
PREFORMED WIRE ROPE

The woods are full of them

Modern loggers use modern tools for high, efficient production. The woods are full of McCulloch chain saws only because their light weight, easy handling, and fast cutting pay off on the balance sheet.

FACTS are hard to beat! Actual weight of the McCulloch 3-25 chain saw, with 18-inch blade and chain, is 25 pounds. Actual weight of the 5-49, with 20-inch blade and chain, is 49 pounds. The 3-25 develops 3 honest horsepower, the 5-49 develops more than 5. Both have automatic clutches, automatic-rewind starters —and both operate at full power in any position.

These saws earned their reputation by performance in the woods! Ask your dealer to show you how and why.

NATIONWIDE SALES AND SERVICE

3-25
Blades 18 to 30 inches and 15-inch bow. Priced from $295, f. o. b. Los Angeles
5-49
Blades 20 to 60 inches and 20-inch bow. Priced from $385, f. o. b. Los Angeles
Send for free literature and name of nearest dealer

McCULLOCH

World's Largest Builder of Power Chain Saws

McCULLOCH MOTORS CORPORATION
Los Angeles 45, California

Export Department: 301 Clay Street, San Francisco 11, California, U. S. A.

In a class by itself...the WASHINGTON TRAKLOADER

Engineered from the ground up for logging use exclusively.

"Crux of logging operations lies in the loading," said loggers gathered at the recent Pacific Logging Congress. "We want lots of brakes, torque converter drive, stability, ease of guying, fast travel, controls with feel, visibility for the operator, and guts to stand up under rough use."

The Washington Trakloader is the only mobile loader in the woods today designed and built solely for logging. Every detail of drive, clutches, controls; every basic part from undercarriage to turntable, drums, boom, and A-frame with its roller swivel lead for guying; every element of arrangement and design of the Trakloader originated with loggers' needs.

Meeting these needs calls for ability to load and yard, for a choice of large or small models, for easy adaptability to the use of shovel boom and air tongs, for crawler tracks in one type of operation and rubber-tired undercarriage in another. The Trakloader, as the one machine which offers all these features, occupies a class by itself in the logging field.

LONG-BELL LUMBER CO. now has three Trakloaders in service—one at Scottsburg, Oregon, another at Grand Ronde, Oregon, and a third at Ryderwood, Washington. R. F. Morse, vice president, states that "we have used Washington Iron Works equipment since the inception of our operations in 1923 and have always found it to be satisfactory."

WASHINGTON IRON WORKS
Since 1882

YARDERS • LOADERS • TRAKLOADERS • BLOCKS and RIGGING • FAIRLEADERS • HOOKS and TOOLS

WASHINGTON IRON WORKS

1500 6TH AVENUE SOUTH, SEATTLE 4, WASHINGTON • ELLIOTT 1292

SALES AND SERVICE REPRESENTATIVES:

Vancouver, B. C. — Vanc. Mach. Depot, Ltd.
Eugene, Oregon — P. J. Harms Co.
Portland, Klamath Falls, Eureka, North Sacramento, San Francisco — Fred E. Barnett Co.
Coos Bay, Oregon — Coos Bay Supply Co.
Manila, P. I. — The Edward J. Nell Co.

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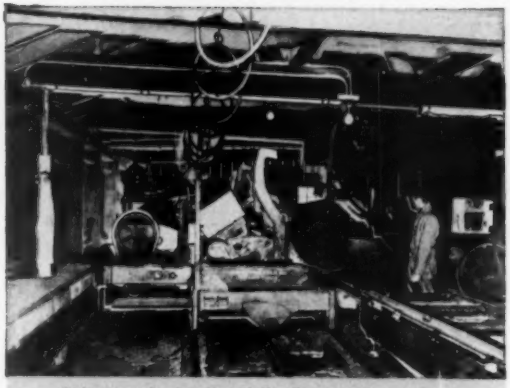
How 4 Lumber Mills Increased Production



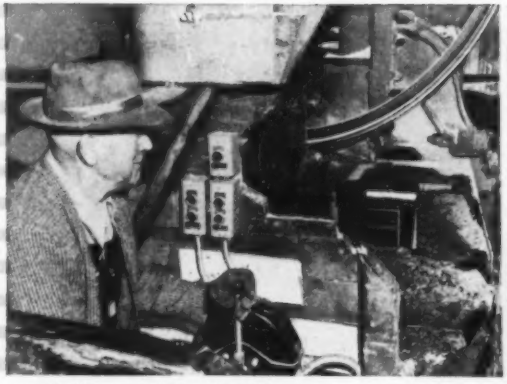
At Loveness Lumber Co., Malin, Oregon, a log starts a fast, accurate cut on carriage powered by G-E electric drive. Set works and feed works are also driven electrically.

G-E LOG CARRIAGE DRIVES BOOST MILL EFFICIENCY

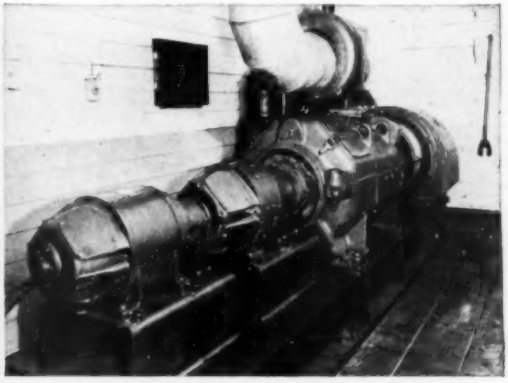
Management and workers alike are sold on this modern General Electric drive because it gives them:

1. High quality lumber production maintained consistently by uniform, unfailing cutting speed.

2. Reduced power cost through regenerative braking which returns power to the system at every reversal of the carriage.



Pushbutton stations and amplidyne master control switch for log carriage drive operated by sawyer at Loveness Lumber Co. Note typical sawyer's grip on switch. "Feel" is the same as that of steam feeds.



Motor-generator sets like this one at Weyerhaeuser's Everett mill provide power for G-E log carriage drive. All components give long-term, low-maintenance service.

You can put your confidence in—

At Weyerhaeuser Timber Company's Springfield, Oregon, mill a G-E log carriage drive was installed on this carriage to conserve steam at the power house. The steam saved was needed for production in other units.

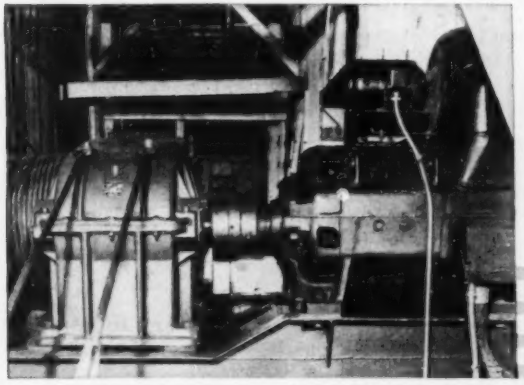
At Plum Creek Logging Co., Columbia Falls, Montana, sawyer on left controls speed and direction of carriage by simple manipulation of G-E log carriage drive master control switch.

3. Protection for personnel and equipment from automatic amplidyne controls on guard against run-aways and carriage overtravel.

4. Wide speed range controlled by simple manipulation of small, conveniently located lever.

5. Snappy acceleration and deceleration of carriage through amplidyne which boosts voltage in main motor for almost instantaneous action when needed.

6. Low maintenance because blower and filter ventilating system keeps motors cool and free of sawdust. Special controls prevent operation until blowers are running.



G-E log carriage drive motor (right) coupled to speed reducer and cable drum (left) in Weyerhaeuser's Everett mill show heavy duty construction of carriage drive equipment which has rendered outstanding performance.

INVESTIGATE TODAY!

The log-carriage drive, like other General Electric equipment for the lumber industry, is the result of careful design and application by G-E lumber specialists. Qualified G-E sales engineers familiar with sawmill requirements will be glad to look over your mill and help you select the right drive and other electric equipment to fit your individual needs. Contact your nearest G-E sales office today for more information and service.

WESTERN PLANTS OR SERVICE SHOPS: Anaheim, Denver, Los Angeles, Oakland, Ontario, Portland, Richland, Salt Lake City, San Diego, San Francisco, San Jose, Seattle. WESTERN SALES OFFICES: Albuquerque, Bakersfield, Butte, Denver, Eugene, Fresno, Los Angeles, Medford, Oakland, Pasco, Phoenix, Portland, Riverside, Sacramento, Salt Lake City, San Diego, San Francisco, San Jose, Seattle, Spokane, Stockton, Tacoma.

Want More Data?

Section D 656-17
Apparatus Department
General Electric Company
Schenectady 5, N. Y.

Please send me your bulletin, GEA-4912, which describes the new G-E Completely Electrified Log Carriage Drive.

Bulletin needed for: ☐ Reference purposes
☐ Planning immediate project

Name _____
(Please Print)

Company _____

Position _____

Address _____

City _____ Zone ___ State _____

GENERAL ELECTRIC

New Testing Set for Permatox 10s or Dowicides

INSURES PROPER MIXING OF SOLUTIONS FOR SAP STAIN CONTROL

Step 1—Take a sample of Permatox 10S solution from dipping vat, making sure it is free of sawdust and debris. Pour into hydrometer cylinder. Place hydrometer in the liquid and take reading on the hydrometer scale.

Step 2—Place thermometer in solution in cylinder and take temperature reading.

Step 3—Refer to Testing Chart and determine strength of solution. Comparison with recommended strength tells whether solution is too weak or too strong.

So simple . . . so easy to use

Every user of Chapman Anti-Stain Chemicals should have this Testing Set

■ The strength of your sap stain solutions is no longer a matter of guess—sometimes too weak to be effective, at other times unnecessarily strong. Our Research Department has developed this rapid method for accurately checking solutions made from Permatox 10S and Dowicides.

With the new Permatox 10S Testing Set, any one can make the tests, following the three simple steps pictured here. These Testing Sets are already being used by many sawmills, large and small. They report greatly improved results from sap strain treatments, and money saved because of less waste of material.

The ideal combination for your sap stain problems is Permatox 10S *plus* this new Testing Set.

OTHER CHAPMAN CHEMICALS FOR THE LUMBER INDUSTRY

CHAPMAN®

Ambrite and Ambrocide prevent sap stain and insect attack in green logs and lumber.

Penta Preservative stops rot and insect attack in wood.

Weed Killers for specific control problems.

Permatox 10S Testing Set costs only $15.00. Order from

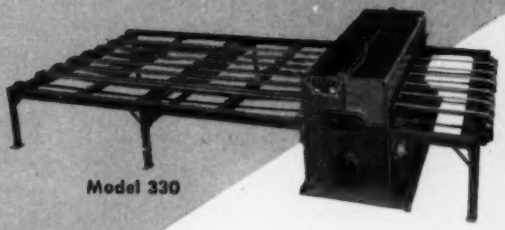
CHAPMAN CHEMICAL COMPANY

333 No. Michigan Ave., Chicago 1, Illinois • Terminal Sales Building, Portland 5, Oregon

DERMON BUILDING, MEMPHIS 3, TENN.

Check YOUR LOSS FACTOR from LATHE thru CLIPPERS!

COE
VENEER
MACHINERY



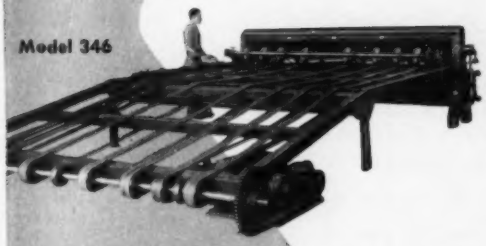
Model 330

Economy of clipping operations is proportionate to the efficency of the clipping and handling equipment used.

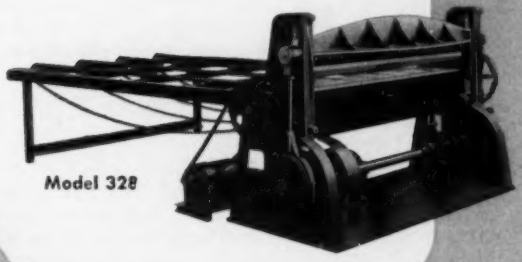
Make sure your veneer handling and clipping equipment is delivering the highest quality and the maximum quantity of usable veneer with a minimum loss factor from lathe through clippers.

Coe veneer clippers are available in a variety of types to meet all clipping needs.

Consult us regarding your specific problems without obligation.



Model 346



Model 328

Coe Model 330 Automatic Panel Clipper. Multiple Knife for sizing single sheets of veneer in motion. Position of cuts are selected by means of a timing chain moving at same speed as veneer.

Coe Model 346 Air-Operated High-Speed Single Knife Clipper for sizing single sheets of veneer in motion.

Coe Model 328 Motor Activated Clipper for clipping multiple layers of veneer. High torque motors operate table and knife. A push button controls the feed table and a floor switch operates the knife.

The COE MFG. *Company*

350 BANK STREET • PAINESVILLE, OHIO

Lathes • Clippers • Dryers • Knife Grinders

FOREST INDUSTRIES NEWS

C. S. "Sig" Leonardson has been named Assistant to President Victor Olson of Washington Veneer Corporation at Olympia, Washington according to Rex Black, Vice-President of Georgia-Pacific Plywood & Lumber Company, of which Washington Veneer is an operating subsidiary. For the last twenty years Mr. Leonardson has been with The Borden Company, Chemical Division, of which he was vice-president. In his new position Mr. Leonardson will be acting as resident manager for the company's two plywood plants at Olympia and will assist President Olson in other activities connected with the Bellingham Plywood Corporation at Bellingham, Washington, and Springfield Plywood Corporation at Springfield, Oregon.

Atlas Plywood Company, Boston, has sold to St. Regis Paper Company, New York, the old Howland pulp mill buildings and site adjacent to Atlas plywood operations at West Enfield, 45 miles from Bangor, Maine, and 20 miles from nearest St. Regis timber holdings. The pulp buildings have been down for several years. St. Regis will renovate, add equipment to make 30,000 tons kraft pulp annually for its kraft paper mills in upper York State and East Pepperell, Massachusetts. This in turn will allow St. Regis pulp mill at Tacoma to give its full capacity for kraft paper machine and multiwall bag plant operations there.

Last month Celanese, slated to open its new dissolving pulp mill at Prince Rupert this Spring, chose Bulkley Dunton Pulp Company of New York to represent Columbia Cellulose in sales of market pulp—pulp not used by Celanese itself. Already there was talk of expansion.

Walter Kennedy has been named chief engineer of the Technical Division, United States Plywood Corporation. He will make his headquarters at the Plywood Corporation office, Palmer, Mass., where research and development of Honeycomb and other United States Plywood products are being expanded.

H. V. Whittall, of the Canadian Forest Products Shingle Division, was recently re-elected president of the Consolidated Red Cedar Shingle Association of British Columbia, representing more than 80 percent of the shingle production of the province. C. G. Watson was re-elected vice-president, and Gordon S. Raphael continues as secretary-manager. Directors were re-elected as follows: I. S. Brand, W. Brownlee, Aird Flavelle, R. B. Horton, W. H. Johnstone, G. W. Lobb, W. K. McCarter, J. MacKenzie, W. H. McLallem, J. E. McNair, Charles Plant, H. E. Roblin, H. Yewdale, H. V. Whittall and C. G. Watson.

The Shevlin-Hixon Co., in operation at Bend, Ore., since 1916, has been purchased by Brooks-Scanlon, Inc. This sale includes manufacturing plant, timber, and logging equipment, according to joint announcement made by W. H. Myers, general manager of the Shevlin-Hixon operations in this area, and Thomas F. Brooks, assistant general manager of the Brooks-Scanlon plant. Brooks-Scanlon and Shevlin-Hixon have operated plants at Bend for over 30 years, one on either side of the Deschutes river. The latter organization will now be dissolved.

A third sawmill for Nevada will be the Tahoe Timber Co. when it gets into operation next March about two miles west of Reno. The mill will be Nevada's largest, cutting between 15 and 20 million board feet annually. Logs will be trucked to the mill from Tahoe National Forest, and private holdings near Truckee. J. K. Metzker is president of the company, and other officials are John Ohlson, Fred Christy, mill superintendent; and D. O. Metzker, logging superintendent.

A BIG NEW MOTO-LOG LOADER BY THEW-LORAIN

THROTTLE CONTROL OF LOAD HANDLING
SMOOTH ACTION HYDRAULIC COUPLING
NEWLY DESIGNED, RUGGED CARRIER
ABUNDANT POWER FOR LOGGING USE
6 WHEEL DRIVE TRACTIVE EFFORT
The MC-504W

Here's the latest Lorain for logging profits! It's a big, new, 25-ton, rubber tire Moto-Log Loader with features that fit loggers' needs. It's the Lorain MC-504W and it can handle *big* logs with the greatest of ease. The Turntable is packed with power — under constant, non-stall, fingertip control through the Hydraulic Coupling power take-off that gives the operator "throttle-control" of load handling — to spot loads on trucks with a smooth, shock-free precision.

The Carrier is especially and newly designed, built by Thew for a 25-ton capacity machine. It's heavy, strong, with box-section side frames for added rigidity to give long-lasting, log loading service. There's man-saving air-assist steering; axles mounted on Equalizer Rocker Beams for rough ground conditions; big, over-size tires for better traction and soft ground flotation; a rugged engine applying drive power to 6 wheels.

Lorain makes bigger and smaller sizes and types of Log Loaders, too — on rubber and crawlers. It will pay every logger to get the complete story about the newest in Log Loaders from your Thew-Lorain Distributor.

THE THEW SHOVEL CO., LORAIN, OHIO

Headquarters for Thew-Lorain

Let us give you the facts today!

Your Local Thew-Lorain Distributor Is Listed Here

ANDREWS EQUIPMENT SERVICE OF WASHINGTON, INC., Spokane, Wash.

CENTRAL MACHINERY CO., Great Falls, Havre and Lewistown, Mont.

COAST EQUIPMENT CO., San Francisco, Calif.

A. H. COX & CO., Seattle, Tacoma and Wenatchee, Wash.

P. L. CROOKS & CO., Portland, Ore.

THE MOUNTAIN TRACTOR CO., Missoula and Kalispell, Mont.

SOUTHERN IDAHO EQUIPMENT CO., Idaho Falls, Boise and Twin Falls, Idaho

TRACTOR & EQUIPMENT CO., Sidney, Miles City and Glasgow, Mont.

VANCOUVER MACHINERY DEPOT, Ltd., Vancouver, B. C., Canada

WORTHAM MACHINERY CO., Cheyenne, Wyo., and Billings, Mont.
Branches: Sheridan, Greybull, Casper and Rock Springs, Wyo.

THEW LORAIN LOG LOADERS

Forest Industries News (Continued)

Construction of a $1 million hardboard plant of 2 to 3 carloads daily capacity was started in December by Cascades Plywood Co., Lebanon, Ore. Announcement of the firm's entry into the manufacture of hardboard is culmination of four years of extensive technical development resulting in an entirely new dry process which will be used in the new plant. By this unique forming method, hardboard can be manufactured in thickness varying from 1/32" to 2". President Chas. W. Fox said it is anticipated that 8 to 9 months will be required to complete construction and installation of equipment.

Amos F. Olsen has been named general manager of the John P. Herber & Co., Inc. He succeeds the late John P. Herber who was shot to death by bandits while in the Philippines.

The Ozmer Lumber Company of Atlanta, Ga. and White, Ga., has announced that it will build a new sawmill on a thirty acre Savannah, Ga., site. D. H. and James Starr of the J. W. Starr & Sons Lumber Co., Atlanta, will also be identified with the new project. The mill will have a five foot band mill, a resaw and planer and Moore dry kilns. The mill will have a capacity of about 50,000 feet per day. The company has purchased a tract of timber on Hilton Head Island, S. C. Logs will be rafted to the mill.

The second annual Sierra-Cascade Logging Conference will be held at Redding, Calif., February 8-10. The program will include discussions on timber supply, forest practices and new logging methods and machinery. Robert Grimmett, Pine Logging Co., Fresno, Calif., is president; Jack S. Berry, Setzer Forest Products Co., Sacramento, secretary-treasurer; and William B. Berry, California Foresteering, Placerville, program chairman. The meetings and machinery show will be at the Shasta District Fairgrounds.

H. J. Stowe, merchandising manager of the A. W. Burritt Lumber Co., Bridgeport, Conn., was elected president of the Lumber Dealers Association of Connecticut at its recent 59th annual meeting.

A new plywood plant of Interstate Plywood Corp. to be built at Bandon, Ore., was in the planning stage early in December. Tentative plans called for green peeler section to get into operation by mid February.

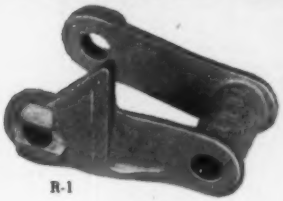
Union Lumber Co., Fort Bragg, Calif., in December, called for redemption of the remaining 22,846 outstanding shares of its prior preferred stock. The company has outstanding 382,130 shares of its $10 par value common stock.

C. A. Doty, 91, one of the West's pioneer lumber and shingle manufacturers is dead. He entered the lumber business in southwestern Washington in 1889. The town of Doty, Wash., was named after him. He operated there for years. From 1927 to 1945 he was in the retail lumber business at Port Chicago, Calif. He retired that year and returned to Olympia, Wash., where he died.

Directors of the Pickering Lumber Co., Standard, Calif., recently voted to split the common stock on the basis of two for one.

St. Paul & Tacoma Lumber Company is starting construction of a modern chipping plant which will be operated in connection with its sawmill at Tacoma, Wash. The company will supply pulp chips to the St. Regis Paper Co., Tacoma. The company will install a Hensel log barker which will bark all logs that enter the sawmill. Since last July St. Paul & Tacoma Lumber Co. has been buying electric power. It currently is developing only enough steam to operate kilns or other necessary equipment. The company has for years enjoyed a large handle stock and fuel wood business. When the new chipping plant gets into full operation practically all waste except the bark will be converted into chips. The bark will be burned in the company's power plant.

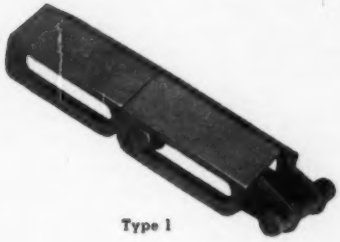
Chains



R-1

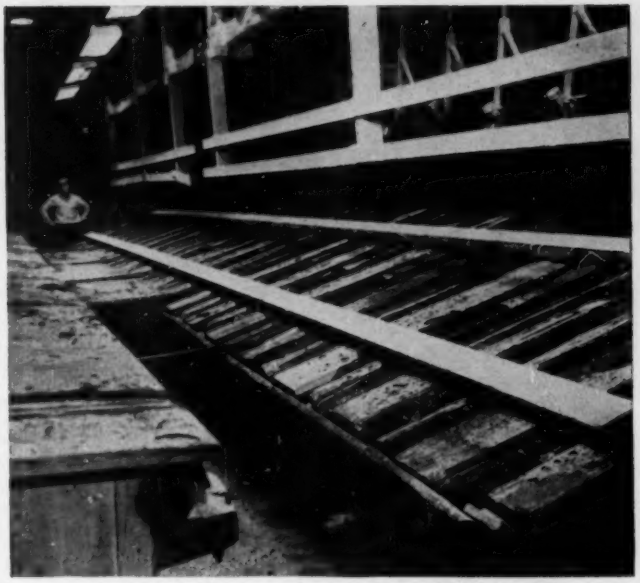
H-2

Shown above are two types of attachments and a section of Transfer Chain. Note that the H-2 attachment is being used on the Trimmer Table in the large photo.



Type 1

For the most service—per pound —per dollar—per year . . . specify Jeffrey Chains for Trimmer and Transfer Tables—for log, lumber or refuse conveyors—for stackers, drives, etc.



• • • • • • on which so much depends

Can you think of any other lumber accessory more important? Or any equipment which is subjected to such continuous wear and strain, and which receives so little care? CHAINS are indispensable —play an important part in almost every lumbering operation. The exceptional strength and wearing qualities of Jeffrey Chains have made them the popular chains in hundreds of mills. Write your nearest distributor for prices. Do it today.

THE JEFFREY MANUFACTURING COMPANY Established 1877

850 North Fourth St., Columbus 16, Ohio

EDWARD D. MALTBY CO., INC. Los Angeles 15 | BEARING ENGINEERING CO. San Francisco 3 | NORTHWEST CHAIN & SPROCKETS, INC. Seattle and Portland

Direct Jeffrey Offices in most large cities.

Complete Line of Material Handling, Processing and Mining Equipment

D. S. Denman, for the past 13 years vice-president of Crown-Zellerbach Corp. in charge of timber and forestry operations in the Pacific Northwest has been appointed to the company's executive committee in San Francisco, where he will make his headquarters after January. After logging for Smith Powers Logging Co., Coos Bay, Mr. Denman served in the U. S. Army in World War I. After the war he logged for Union Lumber Co., and Glen Blai Lumber Co., Fort Bragg, Calif., as well as the Northern Redwood Co., Korbel, Calif. In 1926 Mr. Denman joined Crown Willamette Paper Co. as logging superintendent at Cathlamet, Wash. He later became logging manager, moving to Seattle headquarters in 1934. He was appointed a vice-president of Crown-Zellerbach in 1937, and a director in 1942.

J. L. Camp, Jr., of the Camp Manufacturing Company, Franklin, Va., has been named to the board of directors of American Forest Products Industries, Inc. He succeeds P. H. Glatfelter, of the P. H. Glatfelter Company, of Spring Grove, Penna., who will continue as treasurer.

Michigan has achieved her best forest fire record in history. Reaching a milestone in the annals of state forest fire history, conservation department forest fire chief, Milton M. Bergman, announces 839 fires blackened only 5,390 acres in the 33-week, 1950 forest fire danger period. This is nearly 50 percent less fires and about 75 percent fewer acres burned than last year. The 1949 toll was 21,108 acres by 1,624 fires. The 1950 record shatters the best previous mark reached by a considerable margin. That year was 1941 when 10,463 acres were burned by 1,604 fires.

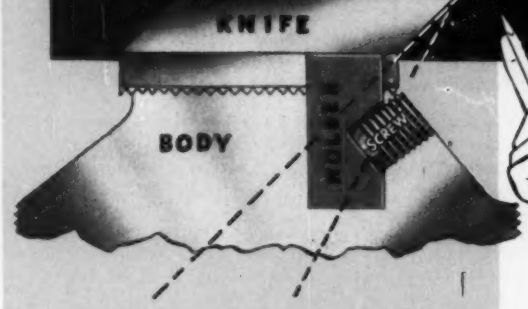
Long-Bell Lumber Company expects to get its new hardboard mill at Longview, Wash., into production sometime in February. The plant will have a capacity of about 55 tons per day and will use the so-called dry process. The company hopes to get its new plywood plant at Gardiner, Ore., by January 1952. The company's new sawmill at Vaughn, Oregon, is supposed to get into production about the middle of 1951.

Truck Loggers on the Olympic Peninsula, Washington, have organized the Forks Truck Loggers Association with the following officers: Joe Daman, president; Don Jacobson, vice-president; Vaughn Davidson, secretary; Guy McDonald, Carmie Hanchett, Frances Deane, Syd Tozier, Walt Bechtold, Frank Henry, Directors. Arnold Hirsekorn was named manager. Major objectives of the new association will be to establish better public relations. It will endeavor to prevent overloading of trucks, safety, and courtesy on the highways.

As The LUMBERMAN went to press Rayonier Inc., had not named a new president. Meanwhile William G. Reed of Seattle, president of the Simpson Logging Co., Shelton, Wash., has been acting as chief executive. Mr. Reed and associates purchased the stock of Edward Bartsch, William S. Lucey and William Edris in Rayonier. Interviewed by The LUMBERMAN in Rayonier's New York general offices, Mr. Reed expressed great confidence in Rayonier's immediate and long-pull future in the industry. Asked about any possible plans for expansion or improvement at the mills, Mr. Reed replied, "We are closely tied with a growth industry and you can say we certainly will continue to grow along with it." He emphasized that his present capacity in the widely known pulp company was temporary. He had, Mr. Reed explained, accepted the interim responsibilities only until a man for the presidency was selected by the board, and at that time he plans to resign his operating duties. It is expected that he will remain as a member of the board and chairman of the executive committee.

H. R. MacMillan Export Co. has taken over the logging operation of Kuchinka & Peterson in Jervis Inlet and is operating it under the name of St. Vincent Bay Division of the parent organization. Frank Kuchinka, continues as manager. Jack Neale, former timekeeper at Kennedy Lake for MacMillan, is office manager. This is the seventh logging operation in the MacMillan string. In addition, the company buys from about 150 small independent outfits.

"3 reasons why I specify Jones & Orth cutter heads!"



Here's why a Jones & Orth H-Type Head is a better buy for your money!

1. **QUALITY OUTPUT!** No change of pattern or cutting angle as you take up for knife wear!
2. **SIMPLICITY!** Fewest possible number of parts without sacrifice of top performance!
3. **LONG LIFE!** Proven designs, with finest steels, precision machined, assure durability!

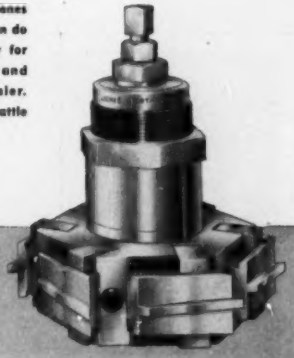
ABOVE diagrams show how a knife is moved forward to take up for wear, yet without change of cutting angle. LEFT diagram shows positive, safe grip of knife by the holder.

"No other cutter head gives us all these, —plus Service!"

In buying cutter heads, the voice of experience speaks for Jones & Orth as the BEST all-around buy in the field.

Side-by-side comparison of operating results again and again confirms the quality, durability and over-all economy of Jones & Orth cutter heads.

Find out HOW what Jones & Orth cutter heads can do for YOU! Write today for our latest catalog and name of nearest dealer. Address either our Seattle or Memphis branch!



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CUTTER HEAD COMPANY

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MEMPHIS 3, TENN.

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SEATTLE 14, WASH.

Need specially designed cutter heads? Let our engineers help! Write us in detail. Prompt service!

Forest Industries News (Continued)

Alaska Pine Co. and associated enterprises, headed by Leon and Walter Koerner, Vancouver, B.C., have integrated their British Columbia forest and wood-processing resources with those of Abitibi Power & Paper Co., of Toronto, which has acquired the assets of B.C. Pulp & Paper Co. D. W. Ambridge, president of Abitibi, in Vancouver explained that the main reason for the Alaska Pine negotiations was to obtain access to additional chips and timber for the pulp mills. In turn, Abitibi will reciprocate by placing at Alaska Pine's disposal B.C. Pulp & Paper timber not required for pulpwood. Abitibi paid about $20,000,000 for the B.C. Pulp & Paper properties and thus made itself the only Canadian company in the industry with operations scattered from coast to coast. Abitibi's net sales last year totalled more than $84,000,000, with a profit of $9,700,000. Capital assets are listed at over $143,000,000.

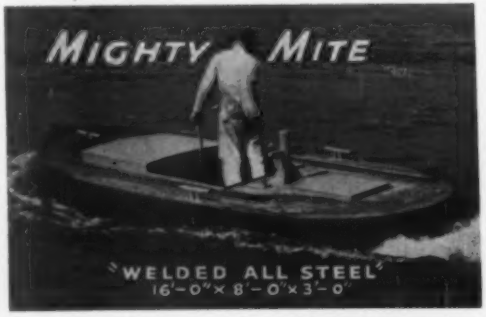
Frank C. Kilpatrick of the Rockport Redwood Company has been elected president of the California Redwood Association. Sherman A. Bishop was elected to the newly-created office of executive vice-president, and will continue his present duties as general manager of this trade organization. Mr. Kilpatrick succeeds Otis R. Johnson, president of Union Lumber Company, as head of the Association.

The 1951 Pacific Logging Congress will be held at Victoria, B.C., November 5, 6, 7. Headquarters will be at the Empress Hotel but sessions will be held in an uptown auditorium. S. G. Smith, Bloedel, Stewart & Welch., Vancouver, B.C., is president.

A. S. Murphy, president of The Pacific Lumber Co., Scotia, Calif., has announced the purchase of the Dolbeer and Carson Lumber Company's mill at Eureka, Calif. This company is one of the oldest in the West, having been established in 1863. The mill has a capacity of 150,000 feet per day. Gordon Manary, Pacific's manager at Scotia, will have supervision of the newly acquired operation.

Diamond Match Co. stockholders have approved a recapitalization plan whereby each share of 6 percent cumulative participating preferred will be reclassified into one share of new $1.50 cumulative preferred issue plus three-tenths of a share of common. The directors have voted to increase the regular common stock dividend from $1.50 to $2.

Rails of the last 9-mile stretch of Stimson Lumber Co., Forest Grove, Ore., logging railroad were being taken up in December preparatory to converting the roadbed to truck-logging road. It was estimated by an official of the company that 580 million board feet of timber moved over these rails since going into production in 1933.



BAIER BOATS

Exclusive Features of the MIGHTY MITE

- DOUBLE FRAMED
- DOUBLE CHINE
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- LEVER STEERING
- THROTTLE & REVERSE COMBINED
- BUILT IN HEAT EXCHANGER

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UTILIZATION *Plus* FAST VOLUME PRODUCTION

with the

SUNBO GANG MILL

at

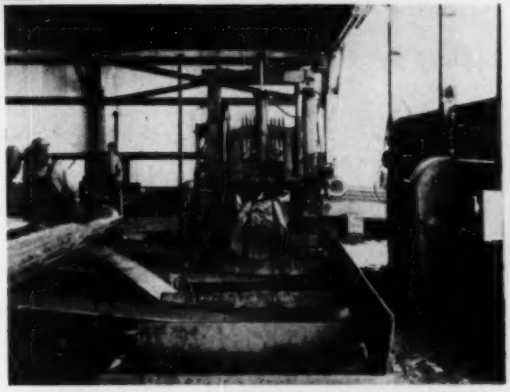
MT. JEFFERSON LUMBER CO.

LYONS, ORE.

This photo shows the infeed carriage of SUNBO Gang Mill at Mt. Jefferson Lumber Company.

CONTRIBUTING substantially to a sound wood utilization program is the SUNBO 26" Semi-Portable GANG MILL at the Mt. Jefferson Lumber Company. Handling logs up to 24" butt diameter, the SUNBO GANG is turning out 35M board feet per day. Thus you have the profitable combination of volume production and wood utilization.

Perhaps your operation is setup to include a Gang Mill just as is the Mt. Jefferson Lumber Company. Write today for complete details on costs and specifications to Mill Engineering and Supply Company.



Outfeed end of Sunbo Gang Mill, showing log guide, roller case and transfer skids.

MILL ENGINEERING & SUPPLY CO.

3311 First Ave. So., Seattle 4, Washington

Export Dept.:
Frazar & Hansen, Ltd., 301 Clay St., San Francisco 11
OREGON
CROWN MACHINERY & SUPPLY CO.
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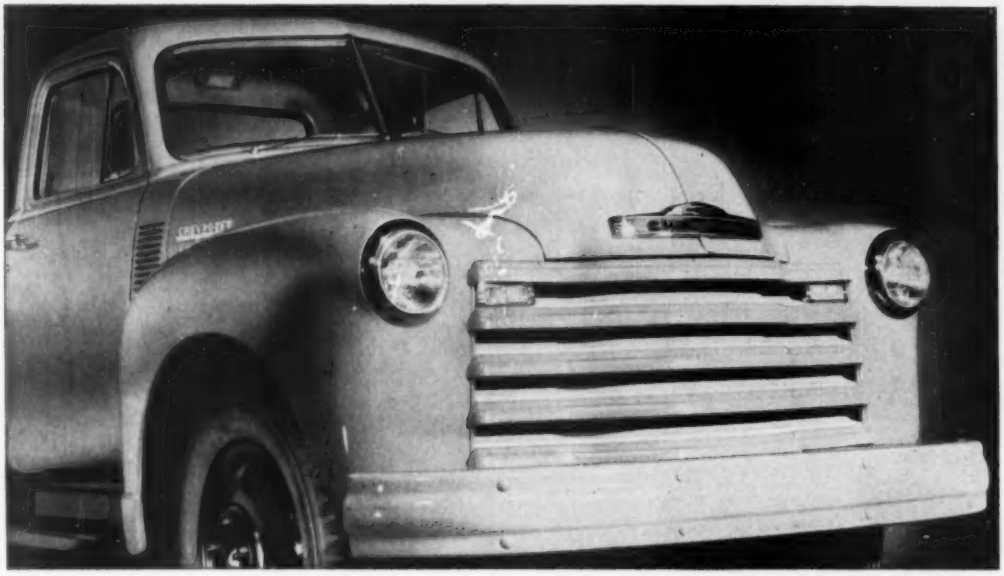
Eastern and Southern States
EARLE HART WOODWORKING MACHINE CO.
Main Offices: 565 W. Washington Blvd., Chicago 6, Ill.

NEW 1951
CHEVROLET ADVANCE-DESIGN TRUCKS



New FEATURES! New QUALITY! New VALUE!

You'll find everything in these new 1951 Chevrolet trucks—everything that has made Chevrolet the world's most popular make *plus* new features and improvements that put them still farther ahead of the field. As a truck user, you'll welcome Chevrolet's new, better designed brakes for their increased effectiveness . . . their thrifty long life and extra safety! You'll recognize important contributions to trucking in Chevrolet's Dual-Shoe parking brake, the new Ventipanes, and Chevrolet's new cab seats . . . the very tops for riding comfort! See your Chevrolet dealer and take a good look at these 1951 Chevrolet trucks at your first opportunity. The "best in the business" are better than ever today! Chevrolet Motor Division, *General Motors Corp.*, Detroit 2, Mich.

CHEVROLET ADVANCE-DESIGN TRUCK FEATURES

TWO GREAT VALVE-IN-HEAD ENGINES—the 105-h.p. Loadmaster or the 92-h.p. Thriftmaster—to give you greater power per gallon, lower cost per load • **POWER-JET CARBURETOR**—for smooth, quick acceleration response • **DIAPHRAGM SPRING CLUTCH**—for easy-action engagement • **SYNCHRO-MESH TRANSMISSIONS**—for fast, smooth shifting • **HYPOID REAR AXLES**—for dependability and long life • **NEW TORQUE-ACTION BRAKES**—for light-duty models • **PROVED DEPENDABLE DOUBLE-ARTICULATED BRAKES**—for medium-duty models • **NEW TWIN-ACTION REAR BRAKES**—for heavy-duty models • **NEW DUAL-SHOE PARKING BRAKE**—for greater holding ability on heavy-duty models • **NEW CAB SEATS**—for complete riding comfort • **NEW VENTIPANES**—for improved cab ventilation • **WIDE-BASE WHEELS**—for increased tire mileage • **BALL-TYPE STEERING**—for easier handling • **UNIT-DESIGN BODIES**—for greater load protection • **ADVANCE-DESIGN STYLING**—for increased comfort and modern appearance.

CHEVROLET

Where the logging is toughest

HEAVY TIMBER—rough, rocky country—long hauls to the landing—they're just another day's work for a "Caterpillar" D8 Tractor. Here's a machine that has won its place as standard of the industry—and won it the hard way, by rugged, unfailing power and dependability.

Says Sherman Rea, of Susanville, California: "We're logging in very rocky country and it takes a good tractor to stand up under the hard use we give it. We can hang two 32-foot pine cuts on the arch and walk the D8 in without any trouble."

Lumber is a big factor in defense, and the D8 performs a mighty part in getting out the logs. Right now the importance of "Caterpillar" equipment, both for military use and for maintaining civilian production, is greatly increased. Talk over your machinery needs with your "Caterpillar" dealer. He has ample parts stocks and service to keep your present equipment in running order and will do his utmost to make prompt delivery of new machines.

CATERPILLAR TRACTOR CO. • SAN LEANDRO, CALIF.; PEORIA, ILL.

A "Caterpillar" D8 with Hyster arch and winch hauls 8,000 ft. of butt log and second cut to the landing for Susanville Lumber Co. at Cleghorn, Calif.

LOOK UNDER THE HIDE

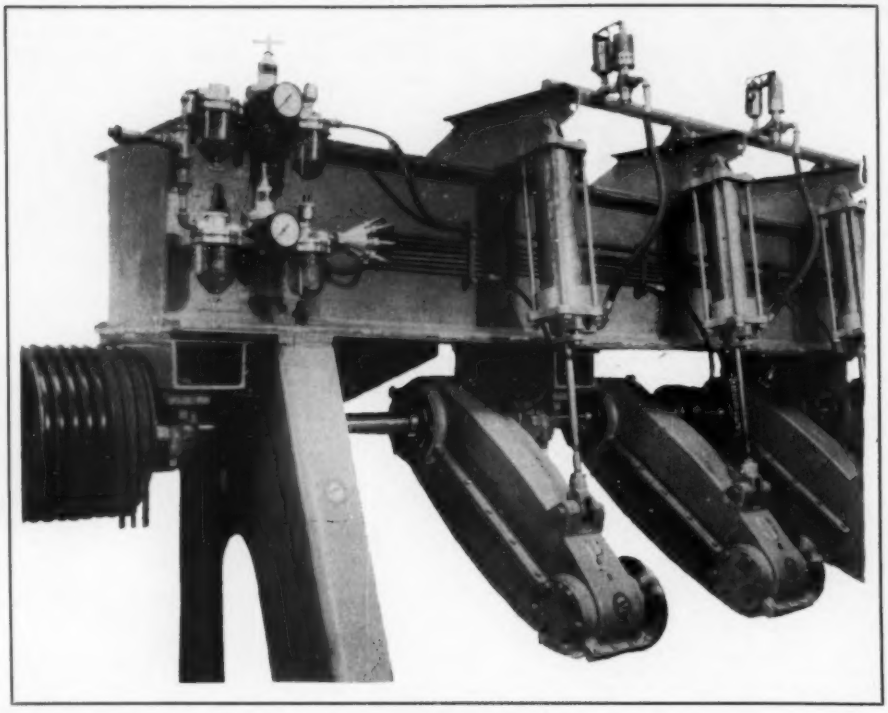
Connecting rods for "Caterpillar" Diesels are made of medium carbon steel, drop forged and heat treated. Of "H" section design they are rifle drilled to provide oil passage to the piston pin, and to oil-cool the piston. Connecting rods are balanced to close limits. Crankpin bearings are solid aluminum alloy, precision type. Piston pin bushings are bronze and are precision bored. Look under the hide for built-in quality.

CATERPILLAR

REG. U. S. PAT. OFF.

DIESEL ENGINES • TRACTORS
MOTOR GRADERS
EARTHMOVING EQUIPMENT

PORTLAND IRON WORKS'
NEW COMPOSITE DESIGN
OVERHEAD - TRIMMERS



NOTE THESE FEATURES:

★ Industrial silent chain-driven, all anti-friction bearing heavy-duty saw ladder units.

★ Automatic airborn micro-oil fog lubricating system for clean, positive and economical lubrication.

★ Everlasting solenoid pilot operated valves and remote control station for selective trimming and slashing.

★ Offered in three types incorporating same unique design. Large Mill Trimmer—Random Length Smooth End and Pony Trimmer to 6" Capacity.

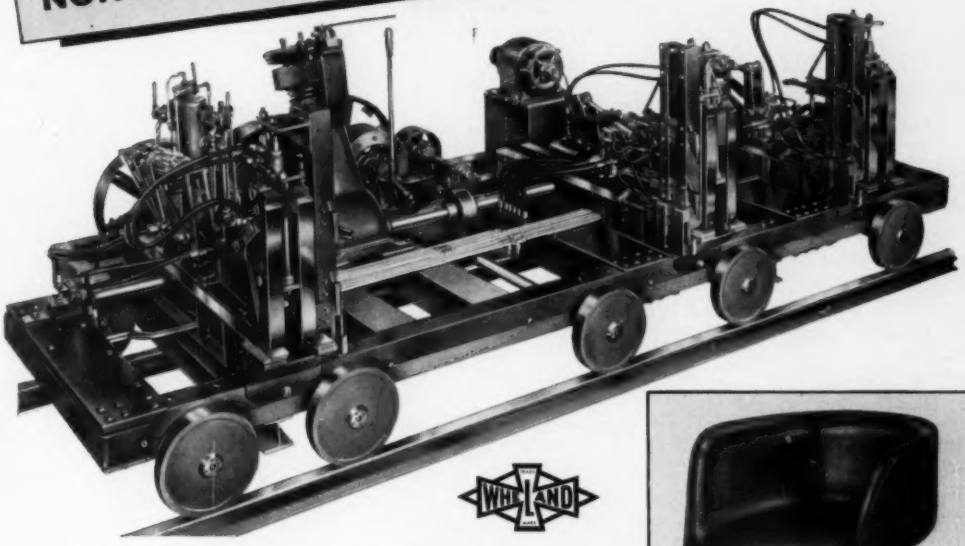
PORTLAND IRON WORKS 1335 N.W. NORTHRUP PORTLAND, OREGON BR-1107

FOR *FASTER PRODUCTION* and *GREATER ACCURACY*

THE WHELAND 481 CARRIAGE

WITH TWO-WAY TAPERS AND NON-DEFACING CAHOON DOGS

Made for the mill owner who wants to get every inch of lumber from his logs



The Wheland 481 Sawmill Carriage is built to give you all the best features in one carriage. Combines air operated non-defacing Cahoon dogs, one-way and two-way tapers in any combination. Hand, air or electric operated setworks. Engineered to fit band or circular mills. Wheland carriages are built to meet your needs. For more information on this and similar carriages, write for Bulletin AD-1.

RIDE A COMFORTABLE SEAT—
This new Wheland seat makes a lot of difference to the man riding the carriage. It can mean a lot to the mill owner, too, through better work by a setter who isn't tired. Just sit in this seat—it's comfortable beyond comparison.

THE WHELAND COMPANY

MANUFACTURERS OF COMPLETE SAWMILLS AND AUXILIARY MACHINERY
CIRCULAR SAWMILLS—HEAVY, PORTABLE • BAND SAWMILLS • EDGERS AND TRIMMERS • TRANSMISSION AND CONVEYOR MACHINERY

CHATTANOOGA, TENNESSEE

FOR OVER 80 YEARS . . . THE FOREMOST NAME IN SAWMILL EQUIPMENT

NOW READY—

1951 EDITION

of

THE LUMBERMAN'S HANDBOOK & DIRECTORY

400 Pages of Valuable Information

HERE'S A SAMPLE OF WHAT YOU'LL FIND IN
THIS 31st CONSECUTIVE EDITION

COMPANIES: Name of companies, operating addresses, head offices, mailing addresses, regional products.

PERSONNEL: Owners, presidents, managers, sales managers, purchasing agents, logging contractors, etc.

PRODUCTS: Species produced, production capacities, equipment used, dry kiln and other operating facilities.

SPECIAL SECTIONS: Sawmills, logging camps and log haulers, plywood and veneer plants, box factories, shingle mills, woodworking plants, treating plants, door manufacturers, re-manufacturing plants, lumber exporters, lumber wholesalers.

STATES: Utah, Oregon, Idaho, Montana, Colorado, Arizona, South Dakota, Wyoming, California, Alaska, Washington, New Mexico, British Columbia, Mexico, Philippines, Southern States (Plywood Section).

☆ NO MATTER WHAT YOUR BUSINESS . . . . . whether manufacturing lumber, plywood, or machinery—prepared to give a service—you will find a copy of the 1951 edition of THE LUMBERMAN'S Handbook & Directory of the Western Forest Industries invaluable in your daily work.

The Largest and most complete directory of the western forest industries ever published.

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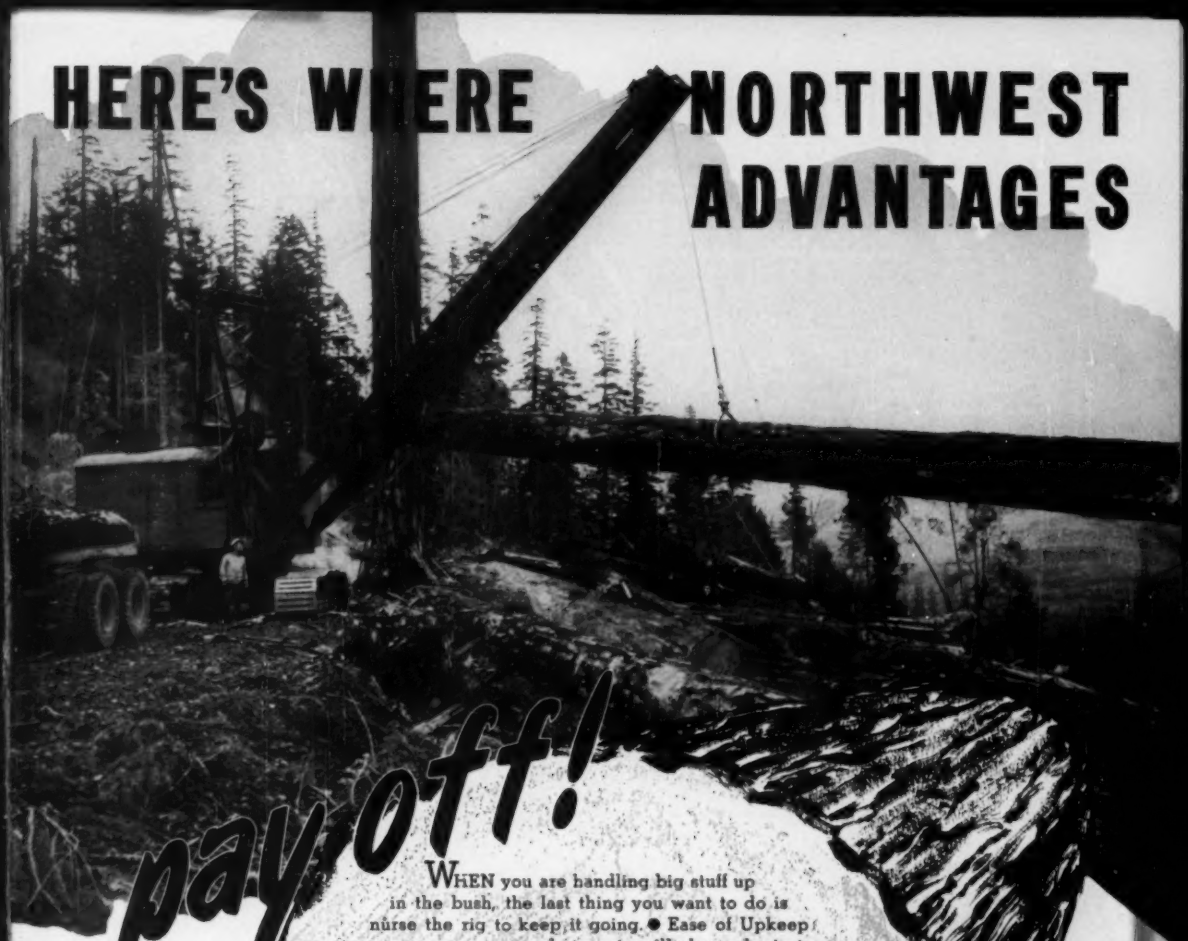
HERE'S WHERE NORTHWEST ADVANTAGES



pay off!

WHEN you are handling big stuff up in the bush, the last thing you want to do is nurse the rig to keep it going. ● Ease of Upkeep means proper care and your rig will always be in top shape. The oiler doesn't shirk part of the job to get down the hill. ● With the "Feather-Touch" Clutch Control you are free of delicate and complex control mechanism that needs special adjustment. ● With Uniform Pressure Swing Clutches you have the smooth swing that makes spotting the big loads easy without loss of time and you are free from the jerks and grabs that set the load swinging. ● The Cushion Clutch makes snaking in the big ones easier and gives you time to get the clutch out before the overload strains something when the tongs "hang up." ● And, perhaps most advantageous of all is Northwest Differential Steering with positive traction on *both* crawlers even while turning. When you send a Northwest up the hill you know it is going to get there—and back.

Maybe that is why Weyerhaeuser Timber Company owns 11 Northwests. Let us give you more details.

NORTHWEST ENGINEERING COMPANY
1510 Field Building
135 South LaSalle Street, Chicago 3, Illinois

NORTHWEST

NORTHWEST SALES OFFICES: SEATTLE, WASH.—1234 Sixth Ave. So.
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NOW TWO MORE *Completely New*

HD-9

WEIGHT: 18,500 lb.
70 DRAWBAR Hp.
GM 4-71 DIESEL ENGINE
SPEEDS: 6 forward, to 5.68 mph.;
3 reverse, to 4.43

OUT AHEAD **Modern Allis-Chalmers Line sets New Tractor Standards**

Each of these four Allis-Chalmers crawlers gives you a new yardstick for rating tractors. Each brings you a new kind of performance . . . plus new strength, operator comfort and service simplicity. For the finest in crawler tractors, see your Allis-Chalmers dealer.

ALLIS-CHALMERS

TRACTOR DIVISION • MILWAUKEE 1, U. S. A.

The World's Most Modern Line of Crawler Tractors

Allis-Chalmers Tractors

NEW POWER RATING

POWER, WEIGHT, BALANCE put them in a class of their own — never such traction . . . such pulling, pushing or lifting ability. And the smooth-operating GM 2-Cycle Diesel engines work without strain under the most extreme conditions.

NEW STRENGTH

All parts are designed and built to carry their loads with a margin of safety. No need to go to a larger tractor just for strength alone. The HD-9 and HD-15 set new standards for tractor quality.

- ✓ For Greater Production
- ✓ For Easier Operation
- ✓ For Simplified Servicing

NEW DESIGN SIMPLICITY . . .

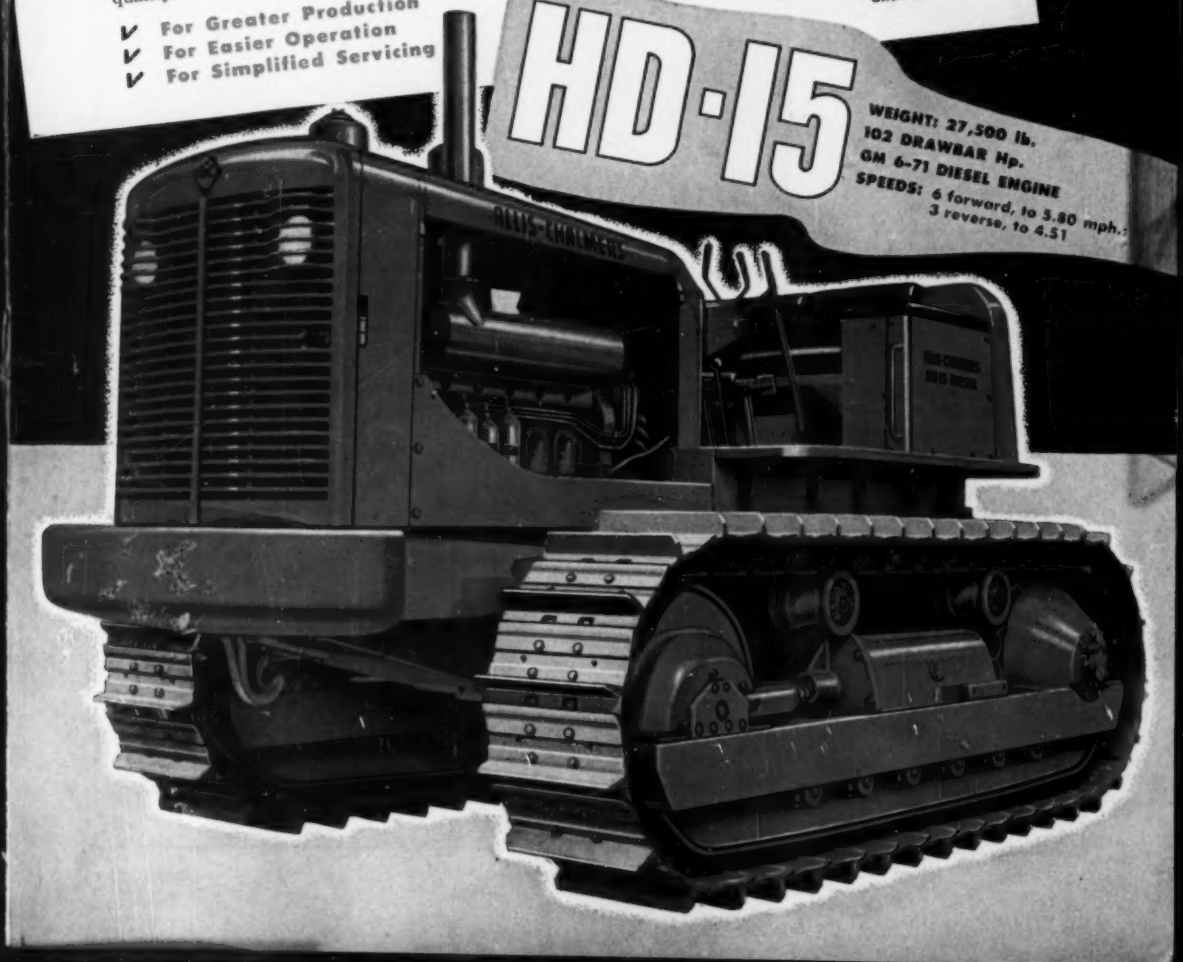
for Easier Control and Greater Operator Comfort— Easy-shift transmission • Self-energizing brakes • Booster steering controls • Adjustable, cushioned seat • Wide arm rests • Convenient controls and pedals • Full visibility • Instant electric starting.

for Simplified Servicing—Unit construction permits removing major assemblies without disturbing companion groups • Extended lubrication periods throughout—1,000 hours on truck wheels, idlers and support rollers.

Complete Line of Matched Equipment, Developed in Cooperation With Allied Manufacturers, Available For Both The HD-9 and HD-15.

HD-15

WEIGHT: 27,500 lb.
102 DRAWBAR Hp.
GM 6-71 DIESEL ENGINE
SPEEDS: 6 forward, to 5.80 mph.; 3 reverse, to 4.51



YARDING IN THE FAR NORTH WITH

GEARMATIC

Model 16 G. F. S. Gearmatic Transmission installed on a B. U. 135 Skagit Yarder being barged into the Khutzeymateen Inlet (70 miles north of Prince Rupert) operation of Columbia Cellulose Corporation. This is one of three yarders equipped with Gearmatic Transmissions now in use by this company, who are also having two new Type G54 Yarders now on order equipped with Gearmatic Transmissions for use on their northern operations.

- Gearmatic gives you combined mechanical efficiency with the ability to select and apply the different speeds INSTANTLY under full load and engine speed.
- Gearmatic gets maximum available H. P. to the logs.
- Gearmatic holds the load in neutral.

GEARMATIC AIR ACTUATED QUICKCHANGE TRANSMISSION

Industrial Models of 2, 3, 5, and 7 speeds
Capacity—from 60 to 1200 Horsepower

GEARMATIC CO., LTD.

636 West 6th Avenue — Vancouver, B. C.

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Northwest Motor Parts and Mfg. Company
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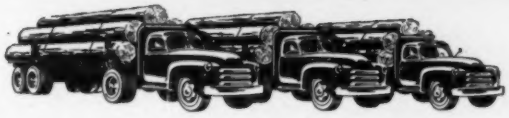
THE BEST BRAKE IS AIR



Have you ever thought about braking in terms of the profit picture of your business? Good, reliable brakes can make a mighty big difference—and that means Bendix-Westinghouse Air Brakes. Why? Because Bendix-Westinghouse Air Brakes reduce maintenance and downtime to an absolute minimum—trucks *stay* on the job, logging valuable pay loads instead of piling on expenses in the shop. And that's only part of the story. Drivers prefer Bendix-Westinghouse Air Brakes, too, because their extra power means positive stops, greater control and less fatigue at the end of a run. Make sure of this added efficiency and the extra profits that go with it by specifying dependable, economical Bendix-Westinghouse Air Brakes—world's safest power-to-stop!

BENDIX-WESTINGHOUSE GENUINE AIR BRAKES
REG U.S PAT. OFF.

THE BEST AIR BRAKE IS
Bendix-Westinghouse
BENDIX-WESTINGHOUSE AUTOMOTIVE AIR BRAKE COMPANY
ELYRIA, OHIO

WESTERN EQUIPMENT CO.

becomes distributor for

OSGOOD and GENERAL

ANDREW E. VANSTROM

MARSHALL McCANN

PORTLAND sales and service headquarters, 2244 N. W. Savier Street, serves northern Oregon and southwestern border counties of Washington.

The Osgood Company and The General Excavator Company announce the appointment of the Western Equipment Company as distributor of OSGOOD and GENERAL excavators, log loaders, and material handling machines in Oregon and Southwestern Washington.

Andrew E. Vanstrom, President, and Marshall McCann, Secretary-Treasurer, direct complete branches in Portland and Eugene, respectively, and a warehouse is also maintained at Roseburg. Both Vanstrom and McCann are well known and widely experienced in the contractors and logging industry machinery field. They head a competent staff of engineers with complete modern facilities to sell and service OSGOOD and GENERAL equipment.

Machines include Shovels, Log Loaders, Draglines, Clamshells, Cranes, and Hoes, ⅜ to 2½ cu. yd. capacity, crawler or wheel mounted. Advanced Mobilcrane is engineered specifically for the logging industry. Units from ¾ cu. yd. up feature Air Control with patented Air Cushion Clutch for smoother, more profitable operation. Write or phone the Western Equipment Co. today for information on OSGOOD or GENERAL equipment or on money-saving maintenance service.

EUGENE division, 1360 West First Avenue, meets the sales and service needs of southern Oregon counties including Lincoln, Benton, half of Linn, Deschutes, Crook, Harney, Malheur, and on south.

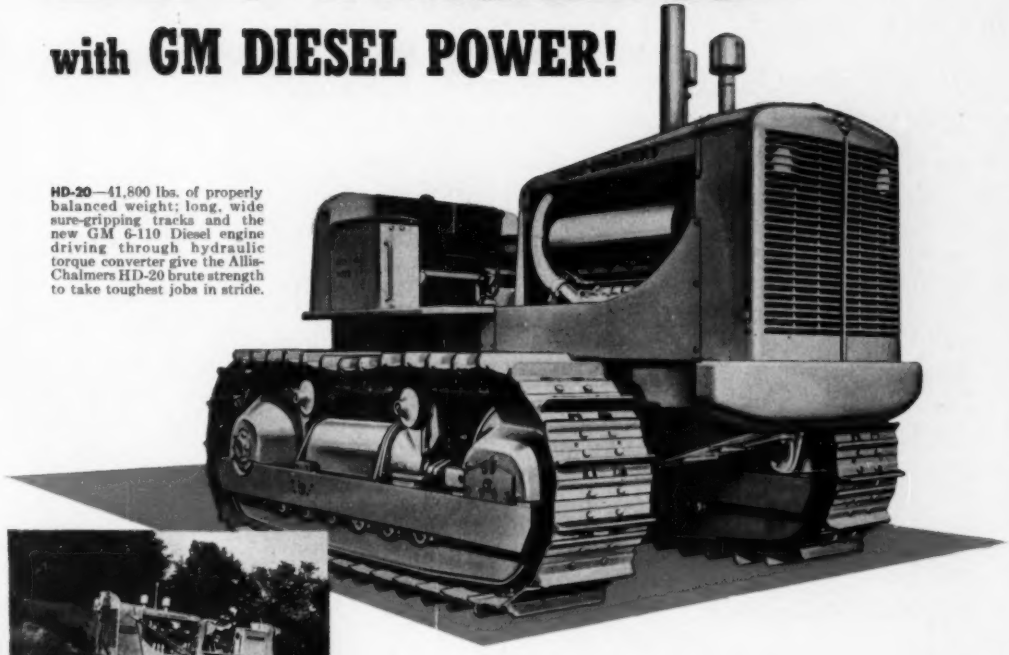
ROSEBURG office and shop, on Pacific Highway 99, North.

The OSGOOD COMPANY and GENERAL EXCAVATOR COMPANY
now represented by
WESTERN EQUIPMENT CO. • Portland, Eugene & Roseburg, Ore.

OUT AHEAD

with GM DIESEL POWER!

HD-20—41,800 lbs. of properly balanced weight; long, wide sure-gripping tracks and the new GM 6-110 Diesel engine driving through hydraulic torque converter give the Allis-Chalmers HD-20 brute strength to take toughest jobs in stride.



HD-15—27,500 lbs.—102 Drawbar H.P.—powered by a 6-cylinder GM Series 71 Diesel engine.

HD-9—18,500 lbs.—70 Drawbar H.P.—powered by a 4-cylinder GM Series 71 Diesel engine.

General Motors 2-cycle Diesel engines supply the hard-hitting power that enables Allis-Chalmers' great new line of tractors to outwork all others.

Four and six-cylinder GM Series 71 engines driving the HD-9 and HD-15—and the powerful new GM 6-110 engine driving the HD-20—give these new tractors a reserve of smooth, dependable power for easy handling, increased work and minimum maintenance.

The greater efficiency of 2-cycle operation and direct fuel injection simplifies design and enables these engines to produce far more horsepower than other Diesels of equal size and weight. Interchangeability of Series 71 engine parts provides maximum availability—keeps them on the job.

That's why GM Diesel engines are chosen to power not only the "World's most modern line of crawler tractors"—but more than 500 different kinds of machinery built by 120 manufacturers.

DETROIT DIESEL ENGINE DIVISION

SINGLE ENGINES... Up to 275 H.P. **DETROIT 28, MICHIGAN** MULTIPLE UNITS... Up to 800 H.P.

GENERAL MOTORS

GM GENERAL MOTORS DIESEL POWER

DIESEL BRAWN WITHOUT THE BULK

40% MORE LOGS
ON A TOUGH SHOW

with a Pacific-Western Torque Converter

NEAR ROSEBURG, OREGON, Jim Welsh operates a difficult mountain show with plenty of cross-canyon logging hauls. He had trouble with transmissions before using the new yarder (illustrated above) equipped with a Pacific-Western Torque Converter and a Pacific-Western Torq-Master.

His log production has increased more than 40% since the Pacific-Western installation was made. Average daily number of truck loads has jumped from 16 to 23. There's no overloading or stalling with the Pacific-Western Torque Converter and greater efficiency is achieved at infinite speed variations and torque ratios to meet load conditions.

You can have the same advantages of higher production at lower cost on your own show by using yarders equipped with Pacific-Western Torque Converters and Pacific-Western Torq-Masters. You'll find Pacific-Western plants and service representatives near all big lumber producing areas.

A Pacific-Western Torque Converter is teamed with a Pacific-Western Torq-Master on the yarder pictured in operation. Yarder is driven by a 275 h.p. Cummins Diesel engine.

Above detail photo shows the compact design of the Pacific-Western Torque Converter (right) and Pacific-Western Torq-Master (left). The Pacific-Western Torque Converter is available for operation with a large selection of Diesel engines. It can also be obtained with the Pacific-Western Torq-Master or with a chain housing for applications not requiring the wide range provided by the two speed Torq-Master.

4954

WESTERN GEAR WORKS

Manufacturers of PACIFIC-WESTERN Gear Products

Pacific Gear & Tool Works

Plants at Seattle, San Francisco, Los Angeles

Representatives Portland, Denver, Houston, Vancouver, B. C.

AGMA MEMBER

IMPORTANT ANNOUNCEMENT

THE NEW KLAMATH IRON WORKS 5′ BAND MILL

Hand or power operated top guide and top wheel mechanism.

Pressure top guide. Weighted knife edge strain.

No sliver bottom guide. Anti-friction bearings.

Steel fabricated base and cast iron column.

Steel top wheel. Cast iron solid bottom wheel.

**Illustrating 5-foot band mill with 9" raising lock resulting in 45" opening under SAW guide.*

Original Designers and Builders

Sawmill and Box Factory Machinery

Remanufacturing and Lumber Handling Systems

Complete Portable and Semi-Portable Band Sawmills

Write for details

P. O. Box 129 KLAMATH FALLS, OREGON Phone 7721

KLAMATH IRON WORKS

Representatives: Washington Machinery & Supply Co., Spokane, Wash.
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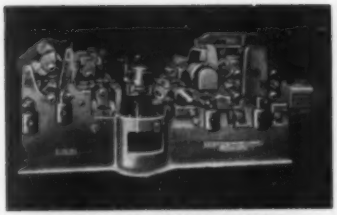
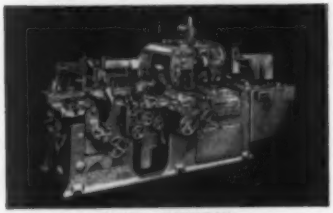
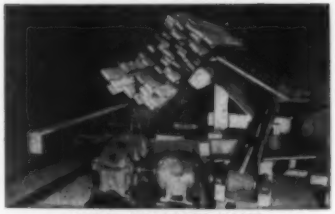


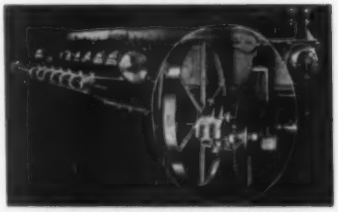
6-10-A1 PLANER AND MATCHER



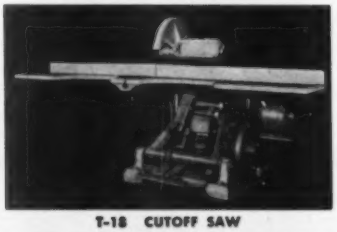
48-K1 MOULDER



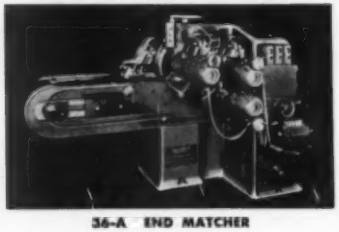
604-E UNLOADER HOIST



T-30 RANDOM LENGTH TRIMMER



T-18 CUTOFF SAW



36-A END MATCHER

PLANNING PLANING MILL EXPANSION?

Act Now!

EQUIPMENT MAY NEVER BE CHEAPER

The year 1951 is forecast to be a year of extensive plant expansion to meet accelerated military and civilian requirements for products of all kinds.

If you have been "thinking about" new planing mill capacity, consider the present outlook. The trend for a number of years to come is clearly evident: demand for new milling capacity will increase—production equipment will be harder to get and deliveries will be dated farther into the future.

Use the present winter months to develop your plans and order equipment, and you will be ready to start construction when the weather breaks in the Spring.

In this way you can avoid long delays and get your new plant into operation in the shortest period of time.

Now is the time for you to make a decision if you need equipment deliveries the first half of '51.

REDUCE COSTS with STETSON-ROSS

Stetson-Ross can assist you with your plans in many ways:

A. Stetson-Ross elementary planing mill layouts are available for space, operational sequence, and synchronization studies.

B. Experienced Stetson-Ross Sales Engineers will make recommendations without obligation.

C. Stetson-Ross offers "a complete family" of planing mill machines of matched capacities to provide a synchronized planing mill production line.

Write today for sample layouts and literature on planing mill machines of the capacities you require.

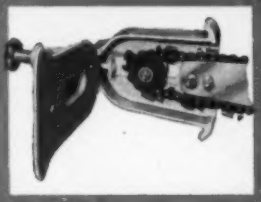
STETSON-ROSS MACHINE COMPANY

SEATTLE 4, WASHINGTON

Export Division: 301 Clay Street, San Francisco 11, California

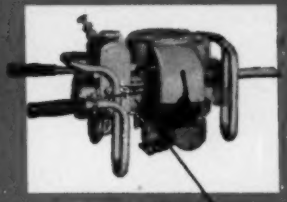
THE *Feature Packed* R-P MODEL 50

The *all-new* R-P Model 50 Portable Chain Saws have the rugged power and speed for cutting any type of timber. Two-man models with idler-type tailstock are available in 24", 20", 36" and 48" capacities. One-man models with open end blades come equipped with 20", 24" or 30" cutting attachments. The same dependable 5 H.P. engine with automatic clutch powers both the one and two-man R-P saws. All blade lengths are readily interchangeable.

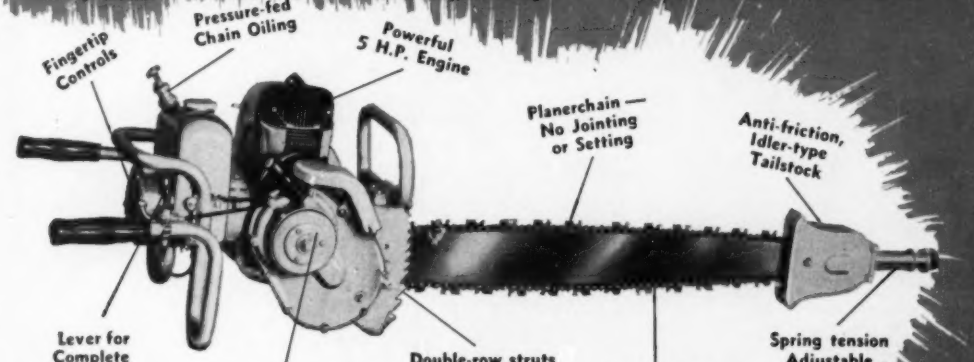


TAILSTOCK
Lightweight magnesium tailstock with needle bearing idler allows chain to travel with a minimum of friction.

CARBURETOR
Dependable float-type carburetor remains upright for all cutting operations and is fully enclosed in dust-proof housing.



SWIVEL MECHANISM
Engine, guide bar and chain swivel full 360° instantly and lock at any angle for notching, felling and undercutting cuts.


Fingertip Controls
Pressure-fed Chain Oiling
Powerful 5 H.P. Engine
Planerchain — No Jointing or Setting
Anti-friction, Idler-type Tailstock
Lever for Complete 360° Swivel
Automatic Clutch & Rewind Starter
Double-row struts to ease load
Narrow, Solid Guide Bar
Spring tension Adjustable Handle

PRICES:

One-Man	Two-Man
20"—$305.00	24"—$331.00
24"—$311.00	30"—$339.00
30"—$319.00	36"—$347.00
36"—$327.00	48"—$367.00

Helper's Handle $5.40

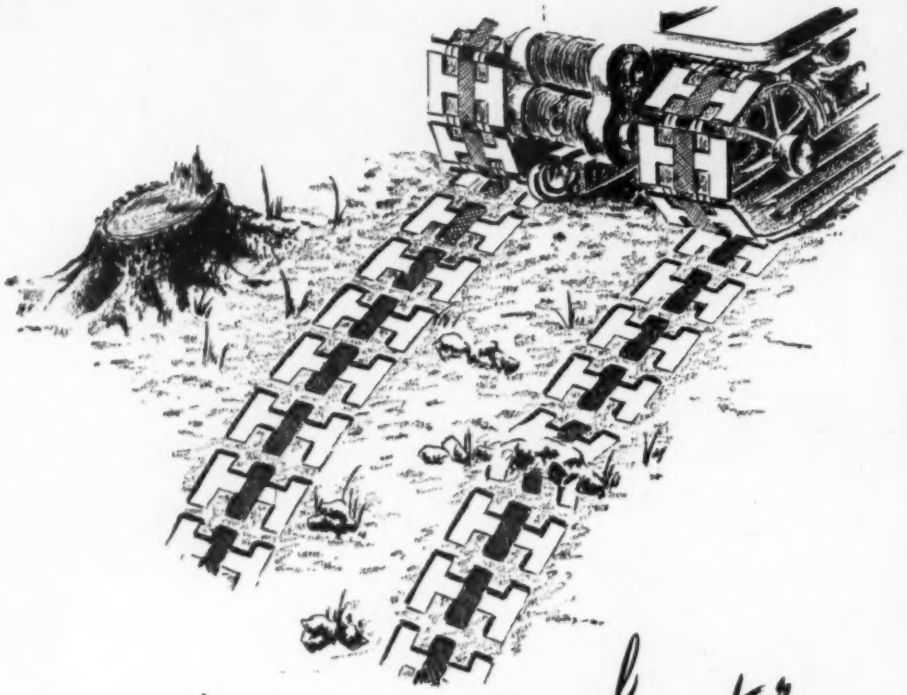
All prices F.O.B. Worcester, Mass.

Distributors and Dealers Wanted

Write today for circular and information to Dept. F

REED-PRENTICE CORP., Worcester 4, Mass.

The Original Manufacturer of Portable Power Chain Saws



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Howard-Cooper Corporation

PORTLAND OREGON

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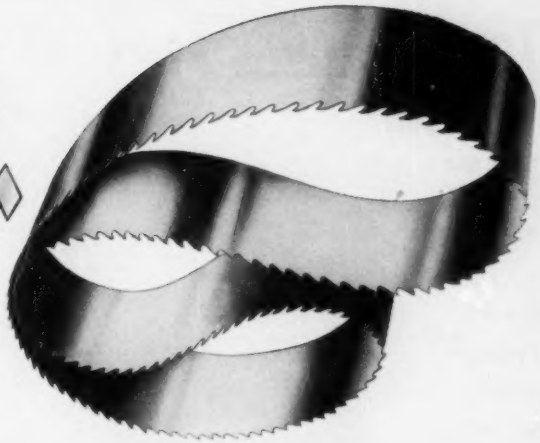
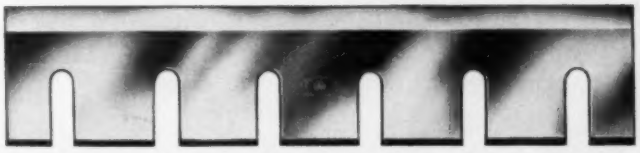
"Silver Steel"





BAND SAWS and PLANER KNIVES by

ATKINS

CUT FASTER—CUT LONGER—CUT COSTS!

A saw that's correctly designed and expertly made can be depended upon for long life and efficient service. Because of the fine alloy *"Silver Steel"* quality—longer, sharper runs are assured, with less tensioning and less maintenance cost, with Atkins!

Blued like clock springs, the steel has added resistance, plus doing away with work hardness. . . . Atkins planer knives also bear the name of *"Silver Steel"*—assures the user of best results for either green or dry lumber!

only ATKINS makes "Silver Steel" products

E. C. ATKINS AND COMPANY

Home Office and Factory: 402 S. Illinois St., Indianapolis 9, Indiana
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ATKINS
"ATKINS ALWAYS AHEAD"

MAKERS OF BETTER SAWS FOR EVERY CUTTING JOB

You get MORE power at LOWER cost from NEW BUDA DYNA-SWIRL DIESELS

Trucks
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Donkeys
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Dozers
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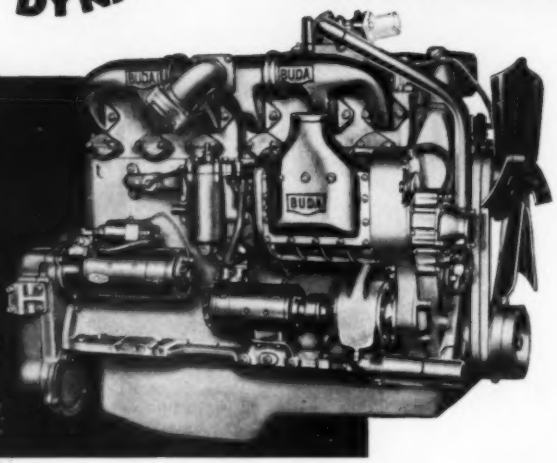
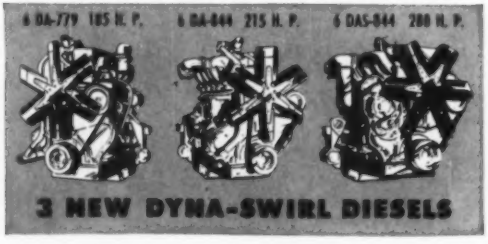
Etc.

there's a BUDA DIESEL for every piece of equipment



One sure way to boost log production is to power your equipment with BUDA Diesels. Loggers are finding these powerful, heavy duty engines more profitable and productive because BUDA Diesels provide:

- More horsepower for extra capacity loads
- Lower fuel and lube oil consumption per horsepower
- Greater lugging ability—more usable power
- Less "downtime"—longer operation
- Less minor maintenance



Your nearby BUDA Distributor can prove the money-making advantages of BUDA Diesels. Ask him about BUDA power for any piece of equipment . . . ask especially about the great new BUDA Dyna-Swirl Diesels. You can't afford not to know about them!

BL-6

BUDA

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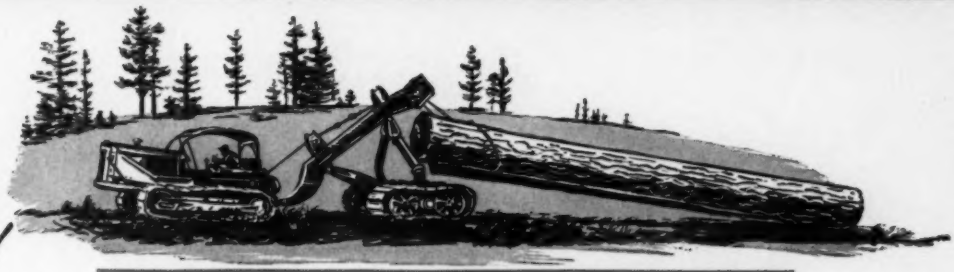
Vancouver, British Columbia



Just as some logs
scale better than others...

TRU-LAY...

will give you more of everything you want from wire rope

● TRU-LAY WIRE ROPE is preformed and made by the men who originated preforming. In it toughness and strength are properly combined to give better and longer service regardless of job conditions. Users like its easier handling qualities and the fact that it is available in all constructions, lays, centers and grades.

Specify TRU-LAY—the wire rope that's engineered to cut costs and improve production—*and get the most of everything you want from wire rope.*

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At Last— QUICKER STARTS, SAFER WARM-UPS in any weather!

The oil in your engine may never get this cold! But even in chilly weather, many oils flow sluggishly, placing undue strain on starter and battery. Such oils fail to lubricate properly during warm-ups; may cause expensive damage.

Heavy Duty Tydols, with high V.I., are non-congealing in any weather. They lubricate completely . . . flow freely to protect moving parts the moment the starter is pressed. And winter or summer, in automotive and stationary engines of every type, Heavy Duty Tydols have proved they keep engines cleaner than any other oil. Proved they measurably reduce engine wear.

For extra safety this winter, choose oil that's impervious to weather's extremes . . . oil that *cleans* as it *protects* as it *lubricates*. Get Heavy Duty Tydols to safeguard your engines.

ALL THREE THRIVE ON RUGGED YEAR-ROUND DUTY!

TYDOL HD—For high speed gasoline, butane, diesel-fueled engines in automobiles, busses, trucks, tractors, stationary units under normal Heavy Duty conditions. SAE grades 10, 20, 30, 40, 50. In cans and drums.

TYDOL HD S-1—Higher detergency level than Tydol HD. For every type of engine subjected to frequent cold starts, or to severe and continued overloading. SAE grades 20, 30, 40. Sold in drums.

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Rely on your Associated Representative for expert help on any lubrication problem.

For the best in basketball sportcasts *PLAY BALL with ASSOCIATED!*

CLEANS as it PROTECTS as it LUBRICATES

TYDOL HD
Compounded Motor Oil

TIDE WATER ASSOCIATED OIL COMPANY

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2-Speed Truck

AXLES

Haul More Every Day

More trips with full load whether roads are good or bad—that's the contribution of Eaton 2-Speed Axles to greater truck operating profits. Eaton 2-Speeds have double the conventional number of axle gear ratios. As a result, the tremendous power of today's engines is utilized to best advantage—speed for good roads . . . pulling capacity under full load for tough spots. Regardless of driving conditions, faster trips are the rule—without sacrificing payload. This ability to haul more is the reason that Eaton Axles pay for themselves over and over.

Eaton's performance is made possible by its exclusive planetary gearing, positive lubrication and other features which your truck dealer will be glad to explain.

Axle Division

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PRODUCTS: SODIUM COOLED, POPPET, AND FREE VALVES • TAPPETS • HYDRAULIC VALVE LIFTERS • VALVE SEAT INSERTS • JET ENGINE PARTS • ROTOR PUMPS • MOTOR TRUCK AXLES • PERMANENT MOLD GRAY IRON CASTINGS • HEATER-DEFROSTER UNITS • SNAP RINGS SPRINGTITES • SPRING WASHERS • COLD DRAWN STEEL • STAMPINGS • LEAF AND COIL SPRINGS • DYNAMATIC DRIVES, BRAKES, DYNAMOMETERS

EFFICIENT PRODUCTION WITH EASE

BY USE OF

MOLINE ROLLER TOP CHAIN

(The Original Roller Top Chain)

Sorting Table Behind the Planer at Bridge Lumber Co., Reedsport, Ore. (Long Bell Lumber Co. Bridge Division)

We Manufacture a Complete Line of Detachable Transfer Chains, Riveted Transfer Chains, Riveted Refuse Chains, (Malloy) Long Link Conveyor Chains, Conveyor Flights, Roller Top Transfer Chains. We Are Licensed Manufacturers of Promal Chain.

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MAKING MALLEABLE IRON CHAINS FOR 50 YEARS

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FRUEHAUFS are "Woods Engineered"

Here's a Fruehauf with 8' bunks hauling out of the cut for Southwest Lumber Mills, Inc., Overgaard, Arizona. The rig is operated by Reid Smith, contract hauler on the job.

Built right in the Timber Country where they know what a Logger needs!

WHETHER it's in the back country or on the highway, Fruehauf Logging Trailers will give you longer lived performance — for Fruehaufs are built to a logger's needs.

They're ready for work in four models with bunks from 7 ft. 10 in. to 12 ft.; in capacities from 32 to 60 thousand lbs. — with brakes in a choice of air or vacuum and extra heavy duty features for positive action and long life. The Fruehauf axles under these units are tough I-Beams that will stand up under the heaviest loads. Here's a Trailer that's built for the job and can prove it. Ask your local Fruehauf Branch for information on the logging Trailer for your haul.

ON-THE-JOB PERFORMANCE PROVES THAT THEY CAN TAKE IT

Extra heavy duty springs, a low center of gravity and quick positive reach adjustment are only a few of the features you'll notice when you see the Fruehauf in action. Rough roads, heavy weather and full loads only make these rigs look better . . . and the number of them in the woods proves their popularity.

FRUEHAUF Trailers

World's Largest Builders of Truck-Trailers

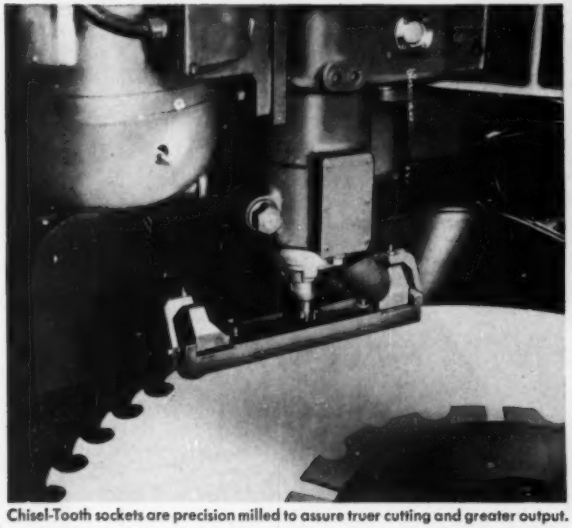
FRUEHAUF TRAILER COMPANY

Western Manufacturing Plant, Los Angeles

Sales and Service: Portland • Seattle • Spokane • Sacramento • San Francisco • Billings • Fresno • Salt Lake City Phoenix • Los Angeles • Albuquerque

to cut fast and true...

use Hoe Chisel-Tooth Saws with precision milled sockets



Chisel-Tooth sockets are precision milled to assure truer cutting and greater output.

Bits are spaced with absolute uniformity because sockets and shoulders of Hoe Chisel-Tooth Saws are cut on milling machines, expressly designed for Hoe.

This exactness of spacing—with the precision construction of Hoe bits and shanks — assures true cutting at the highest possible speeds for the power employed.

With the wide range of designs and sizes of Hoe Chisel-Tooth Saws, you can readily secure a saw exactly suited to the individual requirements of your mill.

Use genuine Hoe bits and shanks

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CHISEL-TOOTH SAWS • BITS AND SHANKS • SOLID SAWS • BAND SAWS • KNIVES • FILES

PACIFIC COAST EDGER

All models of the SUMNER Pacific Coast type Edger are now equipped with anti-friction bearings on the feed rolls and press rolls, both of which are provided with means of adjustment. The edgers are otherwise of the conventional all-steel construction.

BAND MILLS

All SUMNER band mills are now equipped with a new sensitive straining device which puts the strain directly under the top wheel bearing housing — thus eliminating any unnecessary friction and weight — common in conventional band mills.

RINGMAN VALVE

The new Ringman Valve for Jump-Cylinders, Hill Type Niggers, etc., is designed to eliminate the excessive loss of air or steam.

LOG DECK EQUIPMENT

During 1950, SUMNER introduced a complete new line of log deck equipment, designed specifically for the lighter handling involved in the pine industry of the Southeastern sector of the United States, and other locales.

AIR LIFT TRIMMER

Saw arbors on the SUMNER Air-lift Lumber Trimmer are now fitted with anti-friction bearings, for a more efficient and more durable performance. The trimmer is otherwise of conventional SUMNER design, with any number of saws, spaced as desired.

EASTERN EDGER

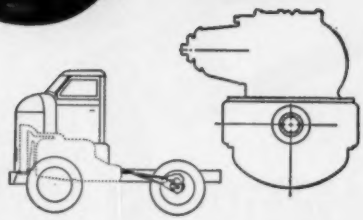
The new SUMNER 6" and 8" Eastern-type Edgers are a composite of cast steel and rolled steel welded frame construction. The arbor, feed rolls and press rolls are mounted on anti-friction bearings, as are the shifters — at all pivot points — and the table rolls. Both size Edgers are equipped with either divided or solid rolls, for one or two man operation.

SUMNER DEVELOPMENTS in 1950

Described here are the most important developments made in sawmill, pulp paper and board mill machinery by SUMNER engineers during 1950. It is felt by SUMNER that each of these developments will contribute, in varying degrees, to a more efficient processing of wood in future years.

SUMNER IRON WORKS
Since 1892
EVERETT, WASHINGTON

ANOTHER TIMKEN-DETROIT "FIRST"!



This diagram illustrates how the new location of the pinion shaft makes possible a "straight line" drive through the propeller shaft to the transmission, eliminating angularity problems. A practical length of propeller shaft is possible with a short wheelbase due to the decreased dimension from center line of axle to pinion shaft end.

A NEW TWO-SPEED, DOUBLE-REDUCTION AXLE WITH THE FINAL DRIVE TOP-MOUNTED FOR SHORT-WHEELBASE TRUCK-TRACTORS!

Timken-Detroit has done it again . . . a new "first" to add to its long list of engineering achievements in the heavy-duty truck axle field! By developing a new *top-mounted* final drive, Timken-Detroit has now made it practical to use a two-speed, double-reduction heavy-duty axle with short-wheelbase truck-tractors. Longer trailers can be used—payload space increased within the legal over-all lengths.

With its exclusive top-mounted final drive, the Timken-Detroit "R-330" Series axle allows, for the first time, the use of a large engine and transmission in combination with a two-speed heavy-duty rear axle that eliminates propeller shaft angularity and length problems common to short-wheelbase truck-tractors. What's more, this new axle is light in weight for all its capacity, and it offers all of the important advantages of Hypoid gearing. All three types of power shift units for vacuum, compressed air or electric motor actuation are available to meet any and all owner and driver preferences.

Let this new Timken-Detroit "R-330" Series Axle solve your short-wheelbase problems. Learn more about it today!

WRITE FOR FREE LITERATURE AND PERFORMANCE DATA TODAY!

TIMKEN Detroit AXLES

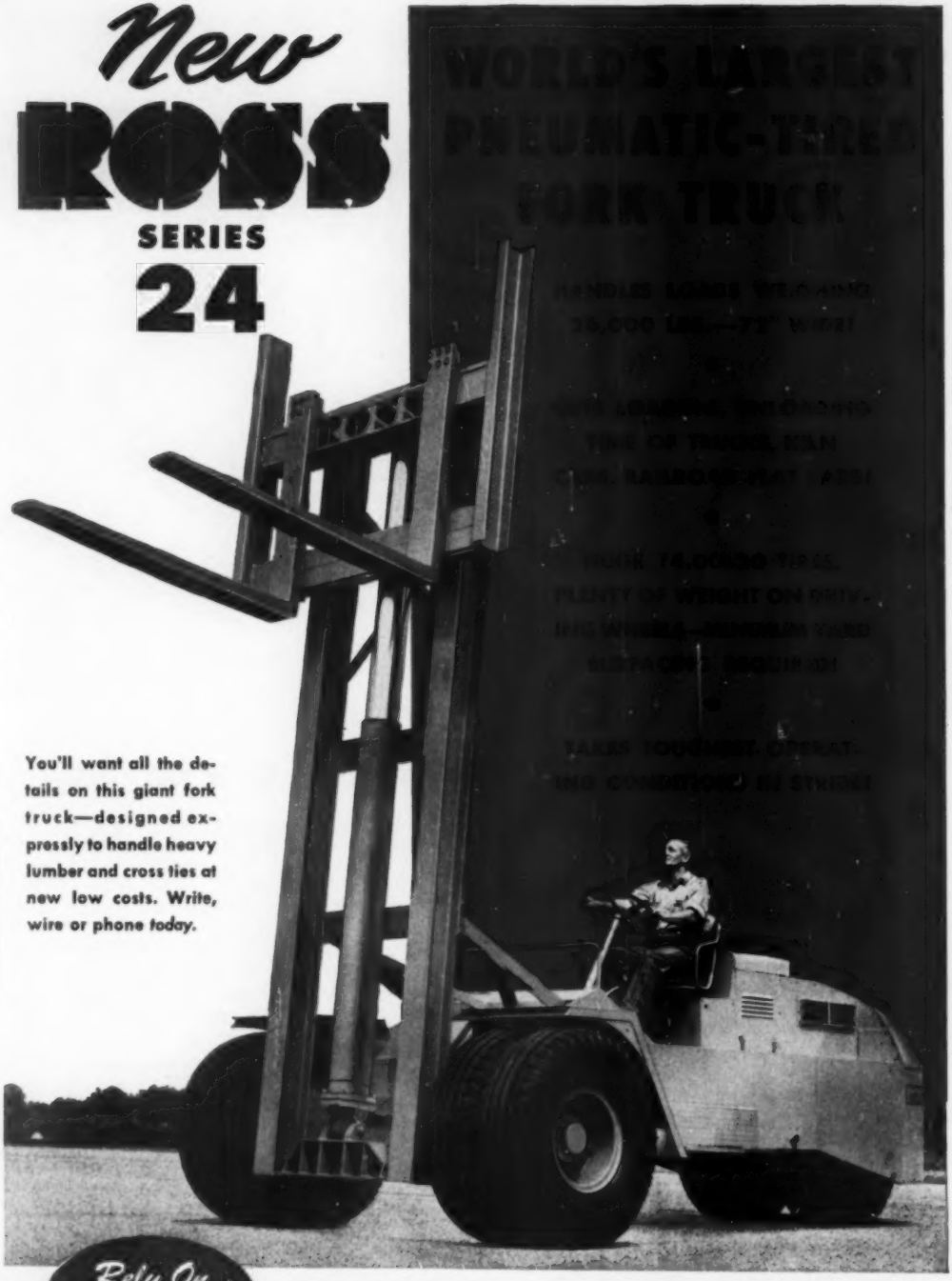
A PRODUCT OF THE TIMKEN-DETROIT AXLE COMPANY
DETROIT 32, MICHIGAN

Accepted T-D Standard

TRADE MARK REGISTERED

PLANTS AT: DETROIT AND JACKSON, MICH. • OSHKOSH, WIS. • UTICA, N. Y. • ASHTABULA AND KENTON, OHIO • NEW CASTLE, PA.

New ROSS SERIES 24



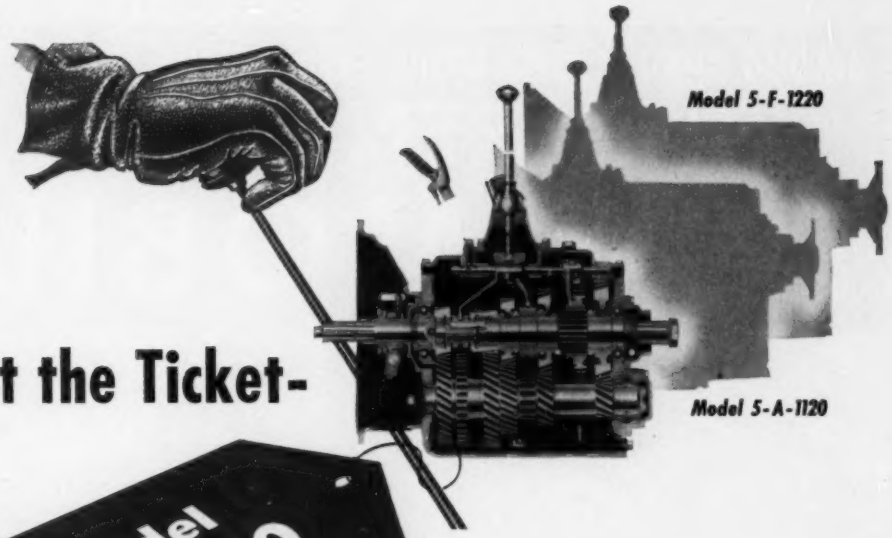
You'll want all the details on this giant fork truck—designed expressly to handle heavy lumber and cross ties at new low costs. Write, wire or phone today.

Rely On ROSS

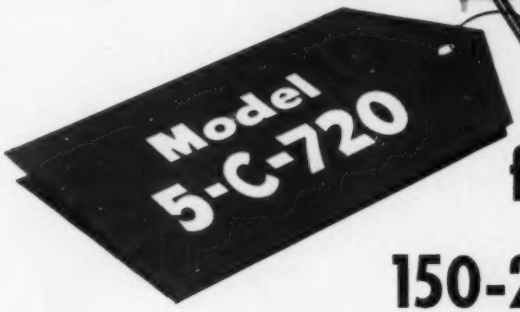
THE ROSS CARRIER COMPANY

Direct Factory Branches and Distributors throughout the world.

240 MILLER ST., BENTON HARBOR, MICHIGAN, USA



Just the Ticket-



for your 150-200 HP DIESELS!

This new heavy-duty Fuller Transmission, the model 5-C-720, completes the Fuller coverage of 150 to 400 hp gas or diesel engines. All three of these five-speeds feature *all-helical gearing* to permit compact design—plus:

- ***Shorter, easier shifts***
- ***Quiet operation***
- ***Longer life***
- ***Low weight—high capacity***

Write now for engineering details.

FULLER MANUFACTURING COMPANY Transmission Division, KALAMAZOO 13F, MICHIGAN

Unit Drop Forge Division, Milwaukee 1, Wis. • WESTERN DISTRICT OFFICE (SALES & SERVICE—BOTH DIVISIONS), 1060 E. 11th Street, Oakland 6, Calif.

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SUCCESSFUL HAULERS TELL YOU WHY...

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LARGER, LIGHTER ALUMINUM TRAILMOBILES EARN $1300 EXTRA WEEKLY... ELIMINATE LOST REVENUE DUE TO PAINTING AND MAINTENANCE TIE-UPS!

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OUR 20 NEW, ALUMINUM TRAILMOBILES WILL PAY FOR THEMSELVES THE FIRST YEAR!

THE TRAILMOBILE CO.

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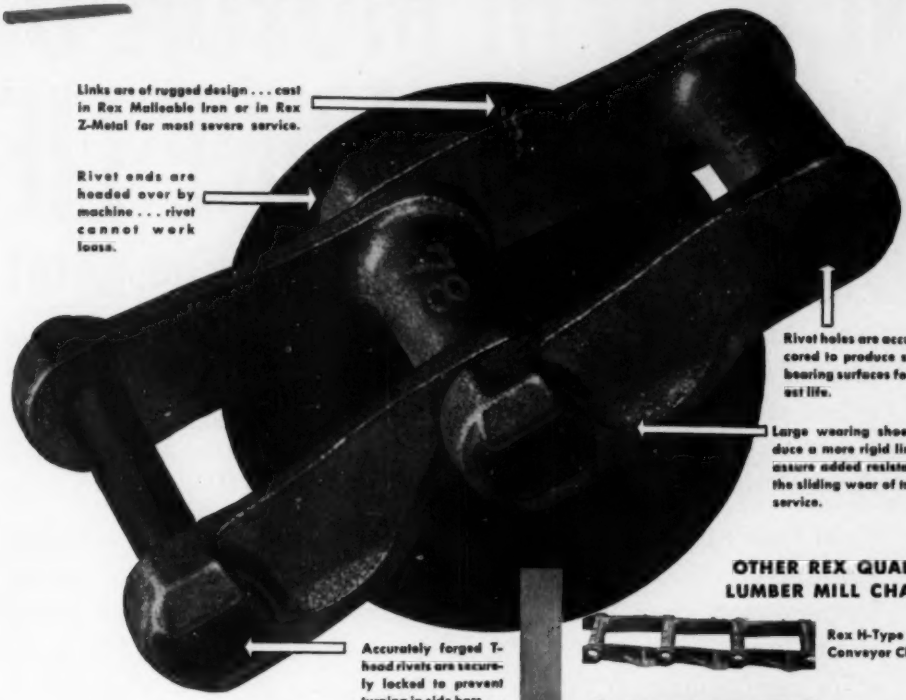
this DOESN'T TELL THE WHOLE STORY...


Links are of rugged design . . . cast in Rex Malleable Iron or in Rex Z-Metal for most severe service.
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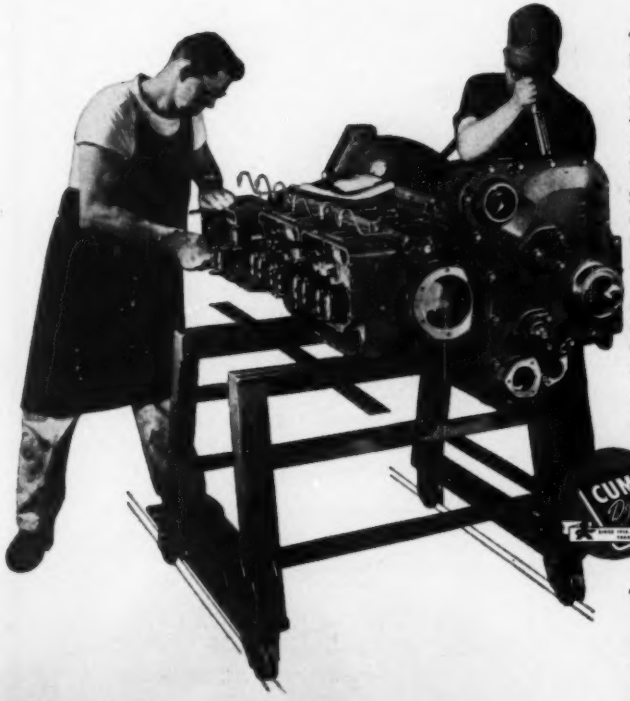

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JANUARY

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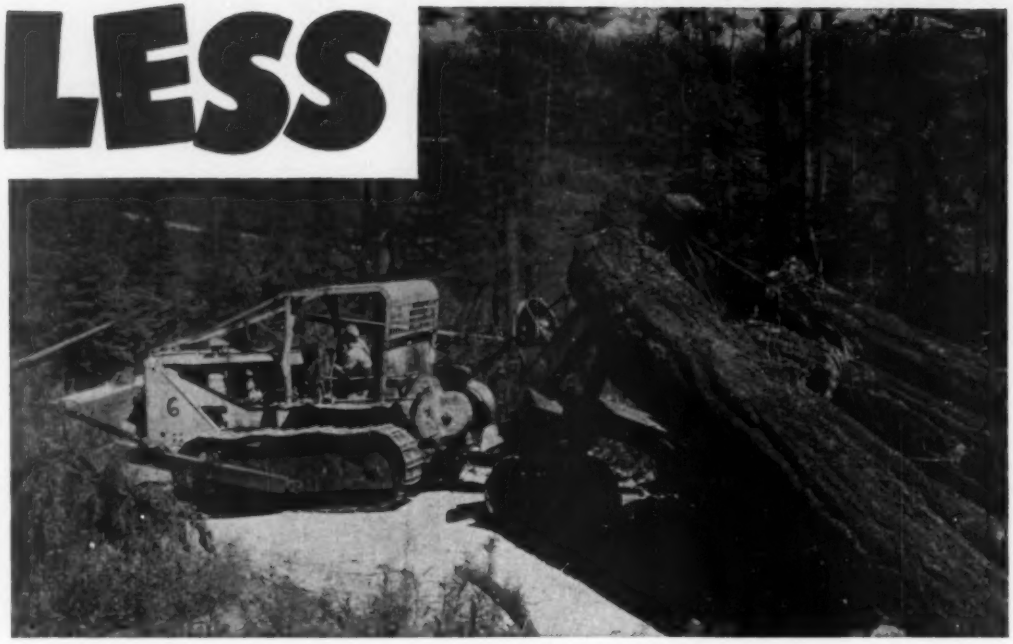

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BETTER MILLS, METHODS AND MACHINERY

PAST YEAR WITNESSED REMARKABLE PROGRESS IN THE BUILDING AND EQUIPPING OF PLANTS TO MEET THE CHALLENGE OF CHANGING MARKET REQUIREMENTS AND TO OBTAIN MAXIMUM RETURN FROM THE RAW MATERIAL

Great changes, almost revolutionary in scope, are taking place in the manufacturing technique of the American lumber industry.

These changes are forced on the industry by a variety of causes, largely beyond the control of mill owners and operators. Cutting off of the old growth virgin timber has in many parts of America brought about an entirely new raw material situation. Small second growth logs are now in many producing areas about all that are available for sawmills, whether they be in the West, South, Lake States, or East. While there is of course virgin timber and, lots of it still available for many mills, the mills having access to such timber are steadily decreasing in numbers.

And another major factor forcing new lumber manufacturing techniques is the increasing demand for high grade logs by the plywood mills.

The time was and not so many years ago when sawmills made their profits from the manufacture and sale of uppers. Common lumber was more or less a by-product. For many reasons well known to lumberman the demand for uppers-flooring, ceiling, trim, is not what it once was and with the plywood mills taking an increasing share of the best logs, the raw material has not been available for as much upper grade stock. So many lumber manufacturers to keep in business have had to develop re-manufacturing or find better means and methods of producing common lumber. Instead of making their profits from uppers an increasing number of mills are now making their profits from common lumber. Many old mills, once major producers of uppers, in 1950 produced little if any such lumber.

There are hundreds of examples of well known old established mills all over America, that have or are adopting new methods and the modern machinery to do a better cheaper job of producing common lumber.

The machinery and equipment seen in these modernized mills or the new mills that have been erected recently bears little resemblance to that found in the mills of twenty five or even ten years ago. Control and handling devices never heard of in sawmills even ten years ago, are now in wide use.

It will be impossible to here enumerate and describe all the changes, improvements and developments that are now being made in sawmill machinery and equipment. A few of the major ones will be mentioned.

PONDS:

Considerable progress has been made in pond saws and the trend is toward cutting logs to required lengths in the pond rather than on the mill deck. This has been made possible and desirable by reason of the availability of efficient chain saws.

Sawing of logs to required lengths in the pond, however, creates a sawdust disposal problem. This can be solved by the installation of suction pumps which pump the

Automatic unit package stacker installed in Anderson & Middleton's new mill at Aberdeen, Washington. This is the first machine of its kind ever put into service in a sawmill.

water and sawdust into revolving screens which discharge the sawdust into the mill refuse conveyors.

LOG HAULS:

There has been a definite trend toward the installation of vertical or side lift type log hauls particularly in the smaller mills now being erected. Vertical log hauls are not new, although they were never in wide use. Vertical log lifts call for far less capital investment than the conventional log haul and are said to be far less expensive to maintain. They also save labor since by means of dual controls one man on the pond and one on the deck are all that are necessary. The increase in number of small logs now moving into the mills has also been a factor in increasing the popularity and use of the vertical log lifts.

LOG DECK:

The trend has been toward the "live" or "chain" deck and away from the old type sloping deck. This is considered a definite improvement in the method of moving logs to the carriage. It not only provides better control over the logs on the deck but also eliminates the hazard of rolling logs.

Another trend is toward more use of air operated niggers and turners.

Progress has been made in log barkers for sawmill use. A few mills have installed such equipment to good advantage.

CARRIAGES:

Developments in carriages and carriage equipment involving the use of arc and electric dogs, taper devices, etc., have been revolutionary. The "no man" carriage for use in small or medium sized mills has been widely accepted in the industry, particularly in mills which produce mainly dimension lumber. For the big mills where much lumber is produced for remanufacturing and where operators require careful setting to within 1/32 of an inch accuracy, the feeling is that the remote control setting does not provide the precision setting that is required.

There is a distinct trend toward use of anti-friction bearings on carriages. More steel carriages are being installed; and there has been much progress in the use and application of electric and air drives.

EDGERS:

Edgers have come in for marked refinement. Edgers are being built with anti-friction bearings and built so that rolls can be quickly and easily removed and replaced. There is also a trend toward use of thinner saws. Another important development in edger operation is the use of vari-drives. These drives automatically provide different speeds for lumber of different thicknesses and make it possible for the edger to operate at its full capacity at all times. The vari-drive has eliminated the necessity of overpowering the edger to enable it to handle extremely heavy cuts. They provide the constant torque. There is a growing feeling that the edger can be made a very important lumber producing unit.

The vari-drive has also found a spot on resaws where much the same problem exists as on edgers.

With the increasing emphasis on the edger, operators are striving to find a way of using thinner saws, and so save lumber. A California millman has developed a method which not only enables him to use thinner saws but has also doubled the production of the unit. He accomplished this result by applying water at the bottom of the cut. The water is drawn up into the cut by the saw.

TRIMMERS:

Great progress has been made in the trimming department. Automatic trimmers are now available and finding wide use in mills not only producing better manufactured lumber but also reducing labor costs. There has been a school of thought that hand trimmers result in considerable saving of lumber but experience has shown that in many cases where hand trimming is done, the trimmermen are unable to keep up with the flow of lumber coming to them and do not have time to examine the stock to determine proper and economical trimming and therefore in actual practice pile piece upon piece, so that no economy results. A development in sawmill trimmers has been the placing of the ladders and shaft on a steel beam. In other words the trimmer is a self contained unit and set on the mill floor like any other piece of equipment. This does away with the old practice of "millwrighting in" the trimmer.

OTHER DEVICES:

An increasing number of gang mills have been installed both as the major log break down unit and also for use as units in the sawing of cants.

The use of air cylinders as a means of aligning cants was adopted during the year in at least one mill.

Another major development during 1950 was the installation of equipment for the automatic packaging of carrier units. This eliminated the laborious pulling of lumber from the green chain by hand.

Great progress has been made in the application of electrical, hydraulic and air devices and controls, now recognized as standard and necessary in well built mills.

MILL LAYOUT:

A recent exhaustive survey of sawmill operations and machinery by the British Columbia Research council had this to say about sawmill layouts:

"There are usually limited possibilities of changes in layout within the mill, but at times a major structural change may be shown to be warranted if it eliminates a bottleneck, saves labor, or in any way improves output or reduces running costs. The most important time to consider layout is when introducing a new machine which will effect the production program. Here again, time studies of operations can assist in planning. One major factor in planning the mill layout is the question of storage capacity between machines. Additional storage capacity normally involves either additional space, additional equipment, or both, though a rearrangement of equipment may in itself provide extra storage capacity. If additional costs are involved these have to be weighed against additional output or against labor savings. Storage capacity is required for two purposes: firstly to take care of fluctuations in production of individual machines resulting from the normal variations of production due to differences in log size and differences in end product; and secondly to take up some of the slack caused by individual machine shut downs. In general it would appear desirable to aim for storage capacity sufficient to tide over short shut down periods only, but the period will vary for different machines in the same mill. It may, for instance, be as easy to justify an hour's storage capacity for the cant gang saw as only a few minutes storage for the edger."

Lumber manufacturers have found the machinery and equipment manufacturers more than willing to cooperate in designing and building the tools needed to re-equip the sawmills to meet present day needs. Without this co-operation not much could have been done. With it the industry is able to produce better manufactured lumber at lower cost.

(Turn to Page 87)

PLENTY OF SAWMILL ENGINEERING "KNOW-HOW" ON THE PART OF THIS MILL STAFF

There are a number of interesting devices in the sawmill of the Collins Pine Co., Chester, Calif., that denote plenty of sawmill engineering "know-how" on the part of the capable staff of the company.

For example, the sawmill is equipped with a log washer that only works when the bull chain is in motion. When the bull chain starts up, the log washer goes on—when the bull chain stops—the water is shut off, thus saving electricity, wear and tear on the pumps, and besides that keeps water from spraying all over the mill deck.

As explained by Everett Maxey, power plant superintendent, who developed the device, the action of the log washer is controlled by solenoids connected in series with the log haul switch. When the controller is closed this feeds a Size D magnetic switch which in turn converts a.c. to d.c. current. The purpose of this changeover in current is to allow the water to keep running a few seconds after the bull chain switch has been open.

If a log should happen to be under the washer at the time the switch was open, from 8 to 10' of the log would not get washed if only a.c. current was used.

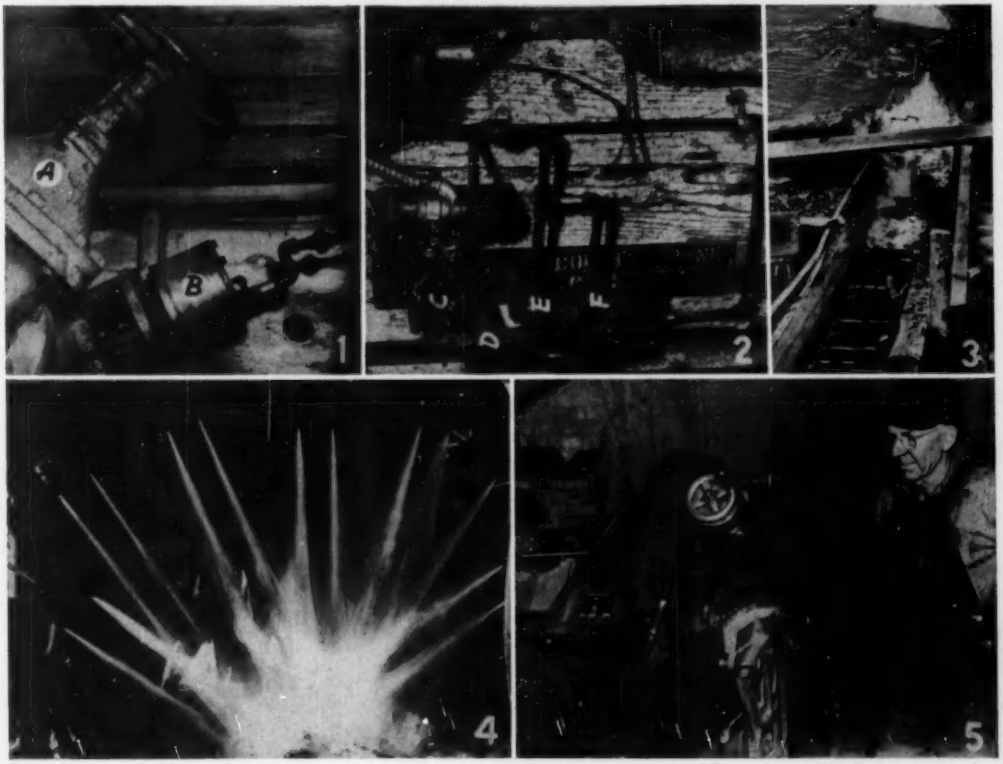
The a.c. current is converted to d.c. through a small rectifier which is mounted neatly in a small cabinet with a series of start and stop buttons, d.c. coil and magnetic switches.

In the accompanying LUMBERMAN photos, the coil marked "C" operates the two air valves marked "E" and "F" which in turn feed air to the cylinder marked "B." The cylinder only closes the valve. The 120-lbs. of water pressure which is used on the washer opens the globe valve by the water passing through the underside of the valve seat.

Another interesting device removes bark from the pond at the edge of the log slip. A chain conveyor runs up the side of the slip, and a spray of water operating constantly washes loose bark from the pond, into the conveyor. The bark is taken into one of the company's two Diamond hogs, and ground up for fuel.

Incidentally, the Collins Pine Co. has no trash burner. All, bark, sawdust, waste, etc., is utilized, either for fuel at the plant, or sold

(Concluded on Page 113)



Shown at the Collins Pine Co., Chester, Calif., is: 1. The Log Washer control detail, (A) Gate valve control on 6" water line, (B) Air operated 4" globe valve. 2. More details of the log washer control, (C) 440 volt solenoid coil, (D) Rocker arm which operated to Crane ball check-valve, (E) and (F) Crane ball checks. 3. Showing the chain conveyor which takes bark from the edge of the pond, and conveys it to a Diamond hog to be ground up for fuel. The bull chain is at the left of the conveyor, not shown in the picture. At the end of the conveyor may be seen the spray of water which makes a current sending the bark to the conveyor. 4. The log washer in action. 5. H. W. Baggett, head filer, stands by his Hanchett saw sharpener. Baggett has been head filer with the Collins Pine Co., since it started operations at Chester.

Modernization of Booth-Kelly Lumber Company's Mill Based on QUALITY RECOVERY Rather Than PRODUCT VOLUME

The old Booth-Kelly Lumber Company manufacturing plant at Springfield, Ore., during the past three years has undergone major transformation. This plant, built 35 years ago when volume production was the prime mill plan yardstick, has been converted to a modern, up-to-date lumber manufacturing plant into which has been incorporated a complete remanufacturing department, two new green chains replacing three old ones which took up more space and handled less lumber, and two steel storage sheds covering an area of 97,000 square feet. As Eliot H. Jenkins, president and general manager, told The LUMBERMAN, "The design of this mill conversion was not predicated on product volume, but on quality recovery."

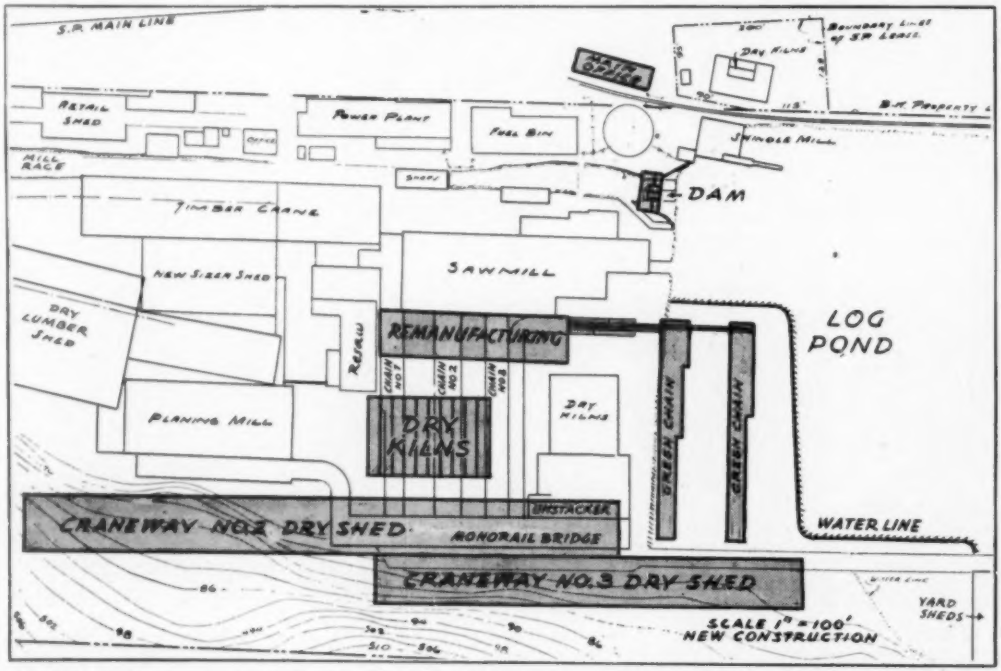
Not only has modern, specialized machinery been provided for effective processing, but extensive lumber transportation and handling facilities enable each piece of lumber to be routed and rerouted for special processing to obtain highest utility prior to leaving the remanufacturing plant enroute to the green chains.

The plant is designed to obtain a "higher grade recovery from any grade log," according to Mr. Jenkins. He says, "At no point in the plant does a grader fail to have proper facilities to do whatever is necessary to improve grade."

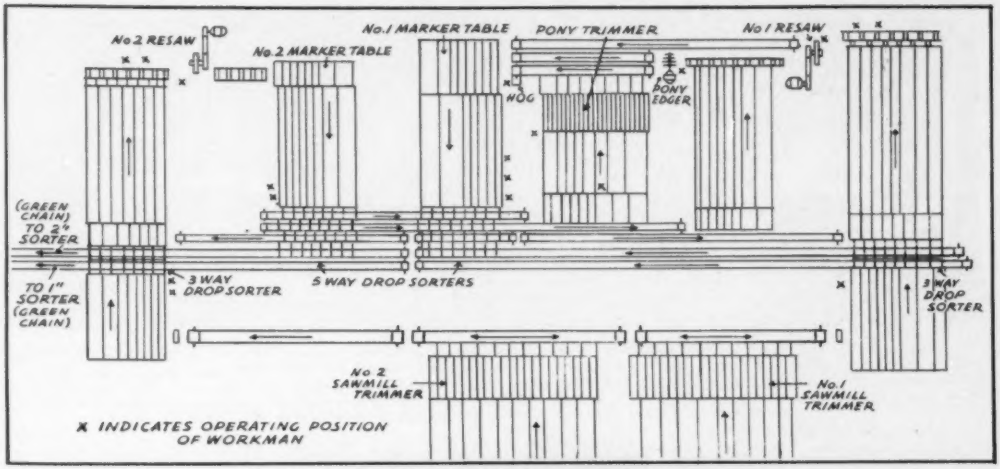
This plant conversion program dates back about four years, a year before start of physical changes in the mill. The "management team," composed of Wayne Davis, production superintendent, Roy Ownby, mechanical superintendent, and General Manager Jenkins, first determined what plant changes should be made to fulfill the "quality recovery" objective, and then figured out how the desired facilities could be incorporated in the limited area in which to operate and without hindering usual production in the plant. M. A. Ward Construction Co., Eugene, also assisted in design and layout.

It might be pointed out that the Booth-Kelly plant was immediately bound in by such obstacles as the Southern Pacific tracks, log pond, Mountain States Power Co. electric generating plant, and a vertical hillside. Spreading of operations was precluded by these barriers, so the changes were of necessity almost entirely confined within existing plant area.

In face of these handicapping obstacles the actual conversion began three years ago. Early last September the program "cleared the hurdle" when the new remanufacturing department was cut into the line of production without having



This sketch shows the arrangement of various units of the Booth-Kelly Lumber Company's old plant and also the new structures that have been erected. These sketches were prepared by the company for the LUMBERMAN and have been drawn to scale. The shaded portion shows the new units.



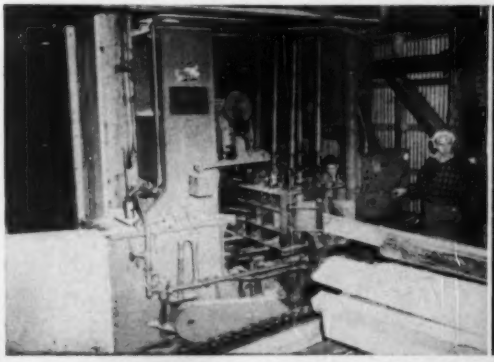
Floor plan of Booth-Kelly Lumber Company's new remanufacturing plant.

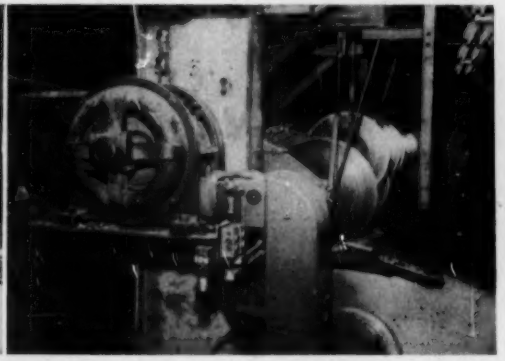
shut down the plant at any time because of converting construction processes.

Changes in the sawmill proper consisted mainly in elimination of what remanufacturing facilities had been in operation prior to converting over to the new plan, replacing a worn edger with a new 12" x 72" I. W. Johnson machine, entirely eliminating an 8' horizontal band resaw and vertical band rip, and installing several modern drives on existing chain and roll transport equipment. Included among these drives are two of the Link-Belt "Electrofluid" hydraulic drives which only recently have been introduced into the lumber industry. One drives the timber tolls and the other the live roll section from immediately behind headrig out past the edger. Both of these units are powered with General Electric motors, as are several Falk "Motoreducers" also installed as transport drives.

Booth-Kelly Lumber Co. personnel in charge of manufacturing operations. Seated: Eliot H. Jenkins, president and general manager; standing, left to right: Roy Ownby, mechanical superintendent; Wayne Davis, manufacturing superintendent of Springfield division; and M. J. Kelly, superintendent of Row River division.

Two unusual features tailored into the sawmill could be adapted to many mills. Behind the headrig is an angular metal ridge for supporting a cant as it is cut from the log. A section of this support is hinged and an air cylinder provided for about 45 degree variation in position of the movable section. At advance valve position the hinged section is swung upward to a flat, horizontal position, and at off valve posi-





Left: Converting 4" stock to 2" by resawing with one of this department's two 66" "Blue Babe" band resaws remanufactured by Northwest Marine Iron Works, at the Booth-Kelly Lumber Co. Right: Prescott 24" Mechanical pony trimmer powered by two G. E. motors, one on the lift and the other driving the saws.

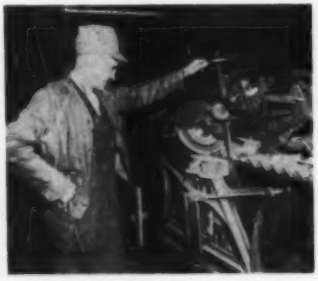
Left: Lumber separator and grading table behind No. 2 resaw. Here the graded boards are separated into 5 segregations, depending on subsequent processing required for each board. American Rubber Co. belts receive lumber coming from all 5 of the separator openings. These belts, from left to right, take lumber to 1" green chain, 2" and thicker green chain, to resaws, to pony edger, to pony trimmer. Right: Drive end of 2nd section of the 1" green chain, showing at left, 3 h.p. G. E. motor, Pacific gearhead driving power pull-off rolls through Link-Belt roller chain. At right is a similar 7.5 h.p. drive unit powering the Link-Belt 78 chain carrying the lumber.

tion the section swings down to some 45 degrees from horizontal. When in the latter position, cuts from the headrig move onto the live rolls with bottom edge of the cut away from the carriage. When the hinged section is horizontal, the position used for sawing cants, the cants fall onto the rolls with top edge away from the carriage. Positioning of this "cant tipper" is controlled by the off-bearer.

Prime processing machines in this 170M sawmill consist of a 10′ band headrig, the above mentioned I. W. Johnson edger, a Wicks cant gang saw, two Sumner air-lift trimmers, and cut-off saws. In the timber section, at back end of mill, is a bull planer for finishing timbers.

As shown in the flow chart, the remanufacturing plant joining sawmill immediately behind the two trimmers, has extensive belt conveyors and chain transfers for carrying lumber to and from the processing machines.

Two Northwest Marine Iron Works



Head Filer A. L. Peru sharpening 16"x60" Simonds band headsaw with No. 6 right hand Armstrong grinder.

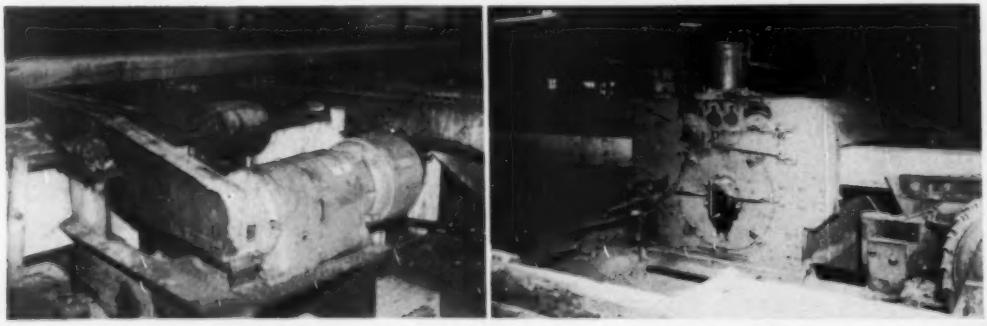
66" "Blue Babe" band resaws, one at each end of the remanufacturing plant, receive lumber from the sawmill via Link-Belt transfer chains.

Behind each resaw is a grading table over which the resawed lumber passes before reaching a 5-segregation separator of the roller-bridging type. These separators are adjacent to each other, both sorting lumber according to needs of the individual boards going through. American Rubber Co. belts receive lumber from the separators, taking boards from there to any of the following: Number 1 and 2 resaw, a 24′ Prescott mechanical lift pony trimmer, 30" I. W. Johnson pony edger, and two green chains.

Every board processed by any one of the remanufacturing plant machines goes through one of the separators and is directed either to a green chain or back to any one of the machines for further processing, which in turn means going through separator again.

Four strategically located grading tables enable grading of every board entering the remanufacturing plant and also grading these boards after each individual processing. Number 1 grading table is located ahead of No. 1 resaw; No. 2 grading table behind No. 1 resaw, pony edger, and pony trimmer; No. 3 table behind

(Concluded on Page 113)

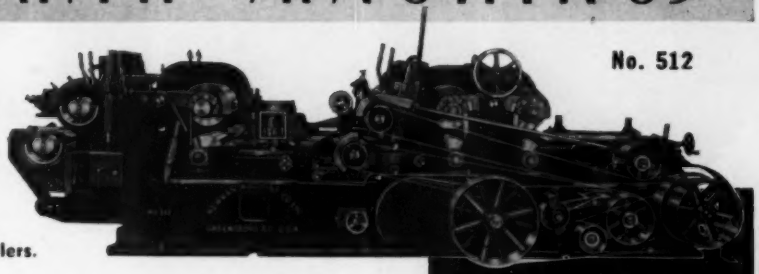


Left: Link-Belt "Electrofluid" hydraulic drive powering timber rolls. Installation of this drive has been found to be of distinct benefit in precise positioning of timbers for trimming. Right: Processing a 12" cant through I. W. Johnson 12" x 72" edger.

NEWMAN MACHINES

Newman

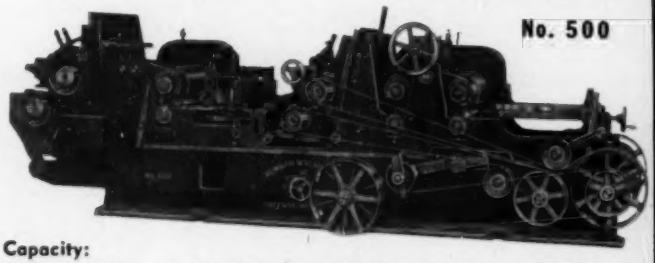
No. 512



Capacity: 16" and 24" wide, 8" thick.
Speeds up to 325 feet per minute.
8" dia. cutting circle.
Six 12" dia. feed rolls.
Single and double profilers.

BALL and ROLLER BEARING PLANERS AND MATCHERS

No. 500



Capacity:
14" and 24" wide, 6" thick. Speeds 40 to 200 feet per minute. 7" cutting circle. Six alloy steel feed rolls. High carbon special alloy steel cylinders. Single or double profilers.

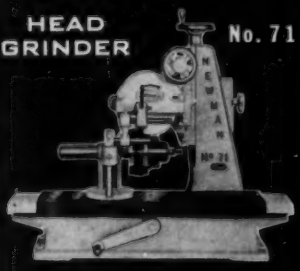
ORDER NOW FOR EARLY DELIVERY

ALL NEWMAN cylinders or heads are DYNETRICALLY BALANCED insuring an accurate and superbly finished product.

Ball and Roller Bearings

The ball bearing NEWMAN 71 (shown below) will grind all sizes of cutter heads. Table is 33" long by 9" wide with horizontal travel of 25" and is heavily ribbed to maintain accuracy over entire travel. Maximum cutter head swing is 11".

HEAD GRINDER No. 71



No. 8-B PLANER, MATCHER AND MOLDER

Unsurpassed for work in small and medium mills

No. 55 AUTOMATIC PINEAPPLE FEED TABLE

The NEWMAN 55 feeds stock automatically to high speed planers and matchers up to 450 lineal feet per minute. Capacity: 30" wide, 8" thick. All adjustments and controls are centrally and conveniently located.

The NEWMAN 8-B planes 22" wide and 8" thick, joints 4" thick and will match 14" wide. 6" diameter feed rolls. Speeds of 30, 50 and 75 feet per minute.

MAY WE SEND YOU FULL DETAILS?

NEWMAN MACHINE COMPANY, INC.
GREENSBORO, NORTH CAROLINA, U.S.A.

GUTS

When two-legged people have guts, they finish the fight and do the job.

Real guts—that's what the world admires—man or machine.

You can't define what makes guts in a man, but you can "analyze" the fighting, working, dogged innards of the Champ. So let's put the X-ray on the TD-24:

Drawbar Horsepower: 148 working horsepower delivered at the drawbar in official tests.

Synchromesh Transmission: you "shift on-the-go," with eight speeds forward, eight reverse for faster time cycles with more pay dirt per cycle.

Instant Speed Change: up or down one speed without declutching.

Planet Power Steering: all turns are easier . . . pivot turns, feathered turns, turns with power on both tracks.

Reserve Torque: gives the Champ the lugging ability to fight through temporary overloads.

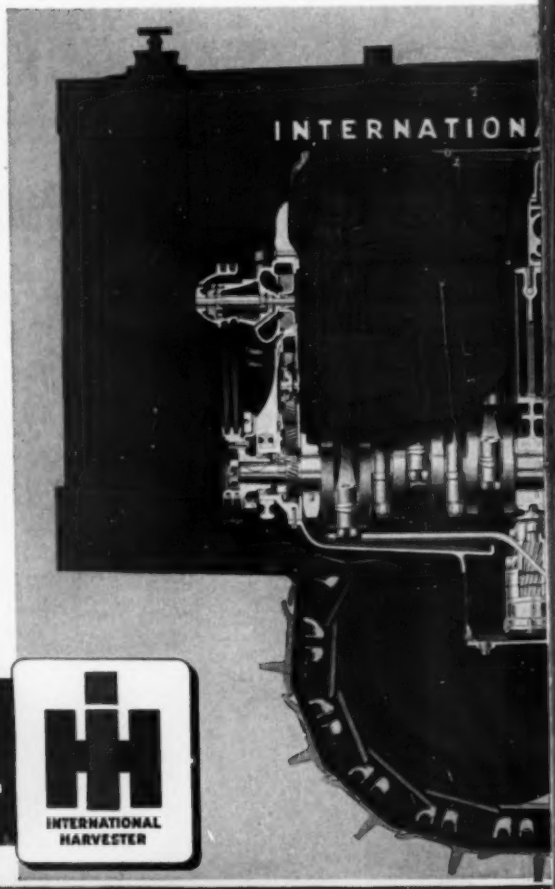
Easy Steering: finger-tip hydraulic controls.

All-Weather Starting: push-button, gasoline-conversion starting—an International exclusive—gets you on the job fast.

More Work: the TD-24 is doing more work—with more speed and more lugging ability—than any other crawler tractor on the market.

Look it over. Then ask your International Industrial Distributor to show you what it can do for you. You'll be a TD-24 man from then on in.

INTERNATIONAL HARVESTER COMPANY
CHICAGO 1, ILLINOIS



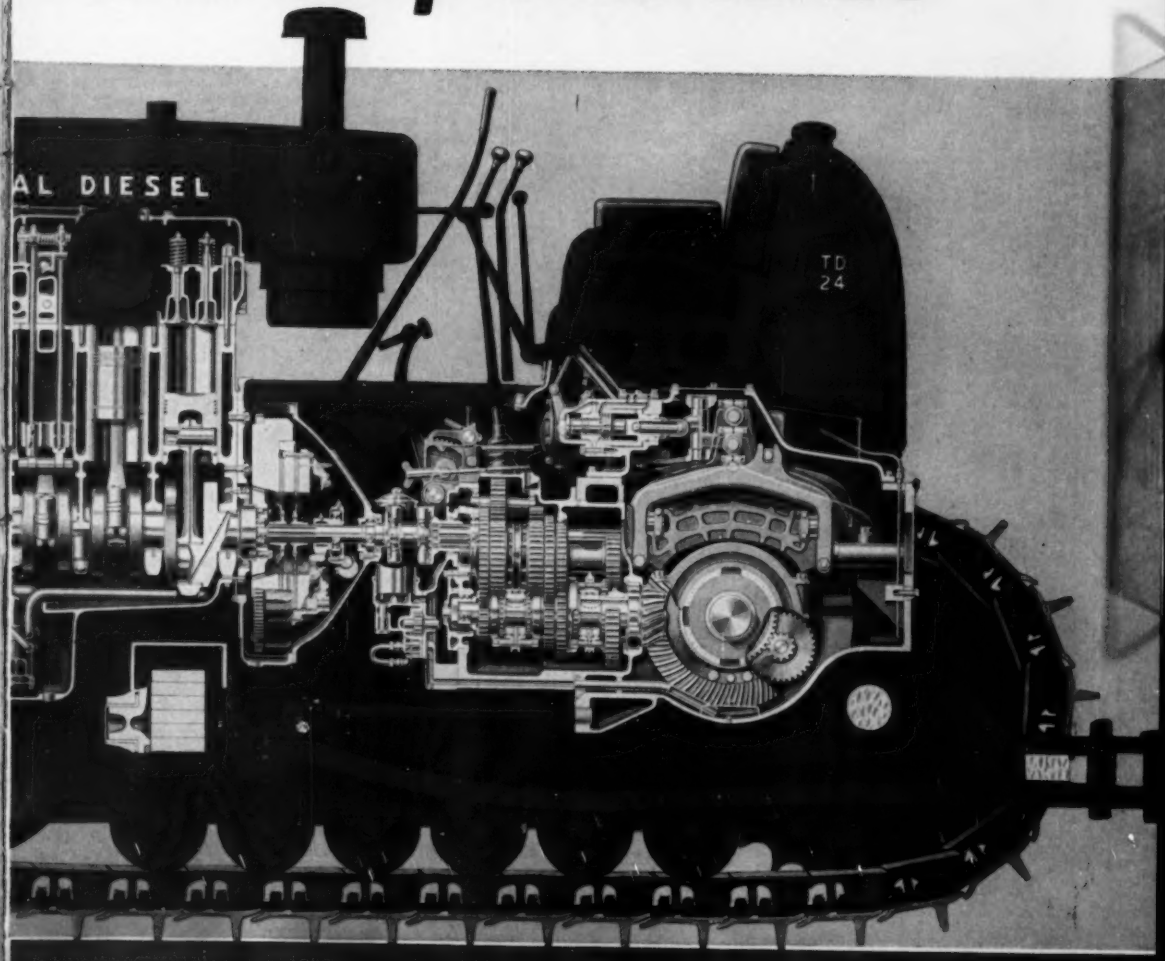
POWER THAT PAYS

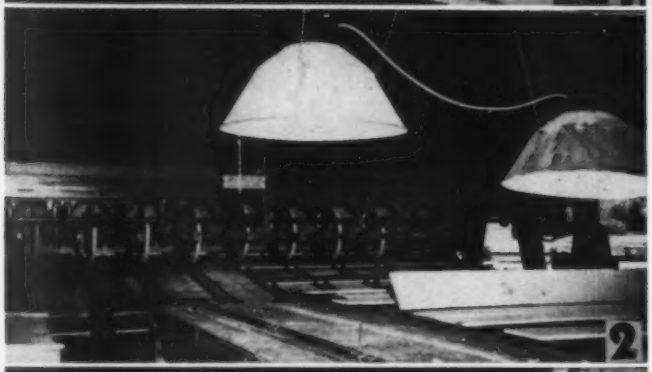
INTERNATIONAL

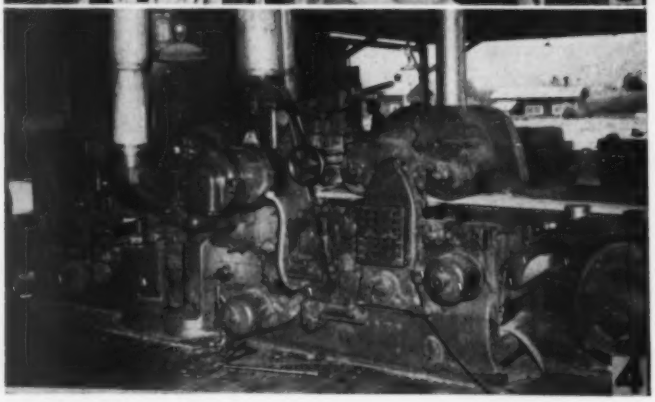
INTERNATIONAL HARVESTER

OF A CHAMP

inside story of the TD 24







A HALF MILLION DOLLAR MODERNIZATION JOB

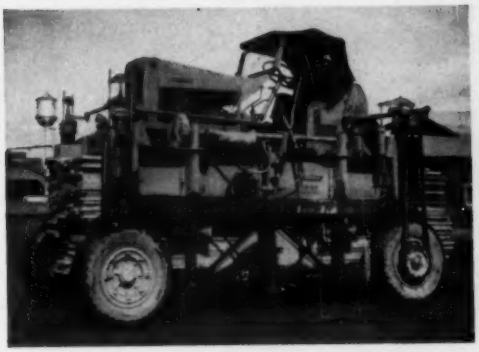
Diamond Match Company's Newport, Wash., lumber manufacturing plant, located on Pend Orielle river at Albeni Falls, has undergone extensive modernization during the past couple of years. This improvement program has been made at a cost of over half a million dollars. The plant changes have facilitated more complete utilization of the harvested timber, increased utility of the manufactured lumber products, and contributed to more efficient processing operations.

Diamond Match is one of the major lumber manufacturers operating in the Western pine region. The Pacific Northwest operations of this organization are under the firm's Northwest Manager, John S. Barron.

Recent improvements at Albeni Falls plant include installation of additional finishing and remanufacturing facilities, large dry kiln addition, construction of several lumber storage sheds, an expansion of steam and electric power generation facilities, and modernization of the sawmill.

THE EXPANSION-MODERNIZATION PROGRAM of Diamond Match Co., Newport, Wash., plant facilitates intensive utilization, manufacturing efficiencies, and higher product utility. 1. A portion of the plant buildings. At right is recently built planing mill and in background the battery of 10 dry kilns along with Moore automatic stacker and unstacker. The shed extending to left covers the dry sorting chains for grading, pulling, and piling kiln dried and air dried stock. 2. Irvington variable feed speed 11-saw 20' automatic selective trimmer giving final processing to finish stock coming over grading table shown in foreground. Saws of this machine are V-belt driven by 30 h.p. 1800 high torque General Electric motor, and 3 to 1 variation on the feed speed is developed by 5 h.p. Varidrive motors for keeping planer and trimmer at compatible speeds. Irvington Machine Works built this machine as a package unit, including the belt conveyor in left foreground. Note lighting system. 3. Feeding green lumber from breakdown hoist to extended spreader table of Moore automatic stacker. 4. PROCESSING LUMBER IN NEW PLANING MILL—Model 6-12-A1 Stetson-Ross 6" x 15" matcher S4S surfacing 1" x 12" boards in new planing mill at 350 l.f.p.m. This variable feed matcher is powered by AdjustoSpeds motors and equipped with Anderson Blower & Manufacturing Co. blower system.

A. M. NELSON



One of 5 new Ross lumber carriers transporting lumber to storage shed.

The steam plant, formerly a 5-boiler unit, has been expanded to 7 boilers with last summer's addition of two 18′ by 78″ Murray Iron Works boilers. Electric power generation has been upped to a rated 1750 k.w. in recent months by cutting in a 1000 k.w. General Electric turbo-generator along with the 750 k.w. Westinghouse unit which previously was sole piece of generating equipment furnishing plant power. This smaller unit did not fully meet the plant's electrical power supply needs, additional power having been purchased from Mountain States Power Co. Now power is generated in amounts over and above present needs, the surplus of which power is marketed to the power company. This surplus can subsequently be drawn upon by the plant as the operations are further expanded.

A Diamond 65 hog has been installed for converting wood by-products of the manufacturing operations into power plant fuel.

During the past year the annual sawmill shut-down came during month of June, somewhat later in the season than usual. At that time extensive modernization changes were effected in the sawmill. The 8′ Diamond band headrig and Filer & Stowell carriage were converted from single cut to double cut; a new electric powered log deck was installed along with a Washington Machinery Co. (Spokane) steam log loader; steam sawguide was replaced by Union Iron Works electric sawguide; a Washington Machinery Co. live roll section added, and a 7′ Yates resaw installed with run-around.

This sawmill conversion, which extended the usual shut-down period about a week, is expected to increase production by some 15 per cent and also contributed to the over-all plant program of improving utilization.

As a result of this conversion, A. M. Nelson, plant superintendent, anticipates continuous operation of the sawmill throughout the winter season unless prevented from so doing by heavy ice formation on the log pond.

The operation's dry kilns have, in this modernizing program, been increased to 10 units by installation of 6 Moore cross circulation, overhead fan type kilns of concrete construction. These additional units increased kiln drying capacity from the previous 60-62M feet per day to 160-170M feet per day. A cooling and make-up shed has been provided at front of the kilns.

According to Mr. Nelson, definite cost economies are here obtained by pumping all dry kiln condensat back to the boilers, returning at temperature of about 180 degrees.

Automatic Stackers

Lumber is prepared for the dry kilns by passing through a Moore automatic stacker for piling and stickering. This stacker has an unusually long spreader table, thus giving the operator more opportunity to sort and straighten out the boards and at the same time keep the stacker loading pocket adequately stocked. Sticker pockets retaining supply of stickers used in making up the kiln units are extra deep; hence providing sufficient live storage to permit the man keeping the stacker furnished with stickers to be frequently free for his other duties about the machine.

This stacker operates one shift per day, preparing 160 to 200M feet of lumber daily for the kilns. As much as 215M feet have been handled in one shift while running 16′ lumber 1″ thick.

Dry lumber from the kilns goes to a Moore automatic unstacker and then over a dry grading-sorting chain for pulling and piling.

In addition to lumber dried in the kilns, air drying of the plant's fir and larch lowers, along with lumber from the organization's other mills, is carried on in the yard. This air dry stock returns to the production line via a tilting Moore hoist from which the boards feed onto the above mentioned dry chain for grading, pulling, and piling.

Lumber from the dry sorter goes to one of the two planing mills or to dry storage.

As of the first of last September, operation of the sawmill, unstacker, and dry sorter went on 3-shift per day 6-day week schedule.

In 1949 the second planing mill was added to supplement the lumber finishing facilities which had previously constituted the finishing department. The older plant includes two 77A Yates-American planers, a Stetson-Ross re-run machine, 2 Yates-American moulders, and a Yates-American resaw.

Lumber in the new planing mill is finished by a 6″ x 15″ Stetson-Ross 6-12-A1 matcher with top and bottom profile. This is a variable speed machine powered by Louis-Allis AdjustoSpede motors. From the matcher, stock flows onto transfer chains leading to an 11-saw 20′ variable speed Irvington trimmer. Feed chains on this Irvington machine are powered by U.S. Varidrive motor.

Stock arriving at the new planing mill by carrier, is placed on pull-up chains ahead of Moore tilting unloading hoist. The table between unloading hoist and Stetson-Ross feed table is long enough to assure continuous feed of boards to the matcher under normal operating conditions.

This planing mill has an Anderson Blower & Manufacturing Co.'s blower system for removing sawdust and planer shavings as produced at the machines.

More Dry Storage Provided

During the past summer the new planing mill structure was extended

(Concluded on Page 106)

Recent aerial photograph of Medford Corporation plant. The power plant and fuel storage are shown at center of the picture between the sawmill at left and the dry kilns on the right.

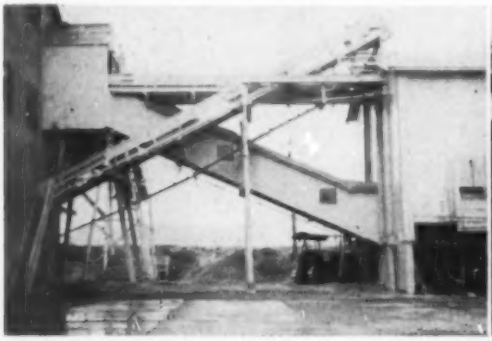
MORE POWER WITH LESS FUEL

MEDFORD CORPORATION FITS A NEW MODERN POWER PLANT INTO ITS WELL INTEGRATED FOREST PRODUCTS MANUFACTURING PLANT AT MEDFORD, ORE.

Oregon's Rogue river basin between the Coast and Cascade mountain ranges has undergone extensive expansion of population and industry in the past ten years. Medford, the principal city in the "Easy Valley," has not been slighted in this expansion. With increased population—and Oregon's population has increased about 40% since 1940, 5th greatest among the 48 states—homes have built up in the shadow of mills originally located considerable distance from residential and business areas. Besides, more mills have been built and established mills have expanded their operations, with result of a general increase of power consumption throughout the area.

Usual problems of community expansion appear to have become pronounced in the Medford area, perhaps chiefly due to this extraordinary rapidity and intensity of the increase in population and industry.

Of prime concern to the forest



Fuel handling facilities between fuel storage and power plant at the Medford Corp., Medford, Ore. Left: Horizontal conveyor at top carries fuel from hog and sawmill to storage; the diagonal housed conveyor takes the stockpiled fuel to boiler room; and the open diagonal conveyor returns overflow from the boiler room conveyor to conveyor leading to storage. Right: Looking down on the Linn-Belt chain in concrete conveyor carrying fuel to storage.

There Is More To Wire Rope Than Meets The Eye—

It's the invisible "ingredients" that make the difference.

Other than its one Red-Strand, a "HERCULES" Wire Rope would look pretty much like any other rope having no distinguishing mark. But there is a difference! And that difference is due to a "thousand and one" *invisible* factors. It is made possible by setting up and rigidly maintaining exacting standards . . . by utilizing our almost 100 years of manufacturing experience in the designing and fabrication of wire rope . . . by strictly following the principle of "quality first!"

As it has never been possible to actually see the numerous properties that make one wire rope outlast another, we originated—in 1886—the idea of painting one strand of "HERCULES" Wire Rope red, and since that time the Red-Strand has not only been a mark by which this rope could be identified, it has been our constant guarantee that its high quality is ever maintained.

Yes, there is more to "HERCULES" Wire Rope than meets the eye, but you can accept, with confidence, the assurance that the Red-Strand provides.

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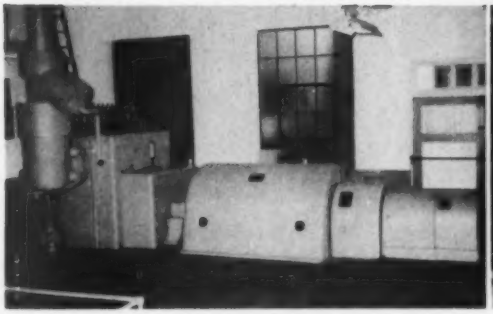
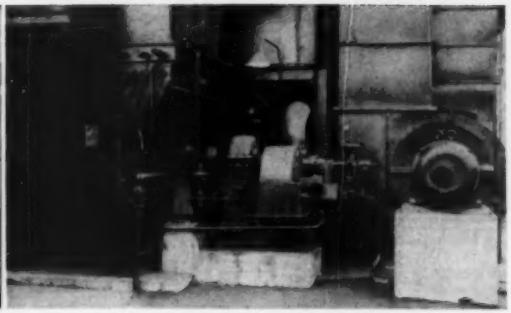
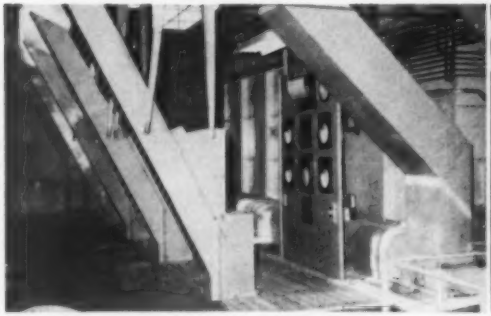


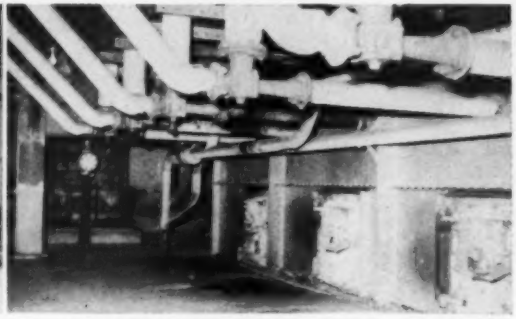
General Electric turbogenerator. G.E. 2500 k.w. 2400 volt generator driven by G.E. topping turbine utilizing 500 p.s.i. (inlet pressure) steam which is exhausted at 150 p.s.i. for operating two 1000 k.w. At left is main 500 p.s.i. header line feeding G.E. topping turbine.



Combustion controls: Left, Buffalo Forge induced draft fan driven by Elliott 300 h.p. steam turbine through Elliott reducer (center); right: Sturtevant silent vane forced draft fan driven by 75 h.p. Westinghouse constant speed motor. Whenever the ID fan changes speed the FD fan follows proportionately. Cinder collector hoppers are located behind ID fan drive.



Boiler room interior. At left are 4 spouts feeding fuel to the Riley Stoker Co. boiler. Hays and Foxboro boiler control instrument panel is shown at right.



The back of Riley boiler combustion chamber. Piping is for cinder reinjection to combustion chamber, from last pass of boiler and cinder collector hoppers located between building wall and ID fan.

products industries here has been the problem of smoke, sawdust, and cinders irritating home owners who have moved into the mill shadow; another confronting the expanding industry is that of keeping plant facilities within the scope of the installed power plant capacity.

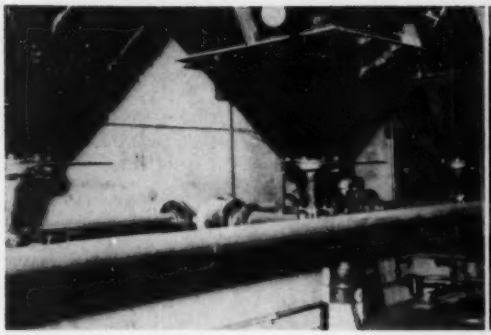
The Medford Corporation, a 250M sawmill with rather extensive remanufacturing facilities has eliminated these and some other operational problems through the expansion of its power plant. This organization, under the management of B. L. Nutting, utilizes virtually all wood waste of the plant, progressively eliminating practically every trace of cinders, sawdust, and smoke from the plant operations by converting all refuse wood material into additional power needed for operating the plant. Power in excess of the organization's remanufacturing needs is sold to a public utility.

This addition to the power plant was designed to efficiently meld with the 150 lb. steam generating facilities already furnishing electric power for the plant and at the same time providing steam in suitable pressure, temperature, and quantity for use throughout the plant. C. W. Cutler, Seattle, Washington, now in charge of Seattle's city light Skagit River development, officiated as over-all consultant for the Medford Corporation project, and E. P. Weiser, of Medford, carried on as supervising engineer. These were in addition to the plant's key supervisory personnel, including Mr. Nutting, Everett Gillespie, general superintendent, and Hans Holt, chief engineer.

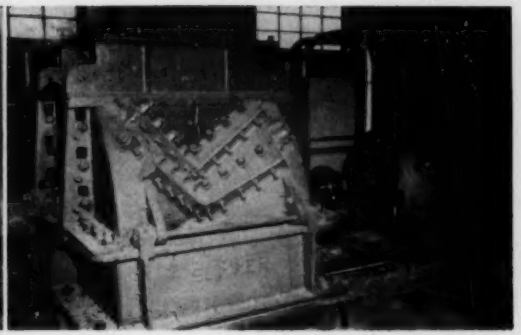
Steam for generation of electric power and for other usage through the plant is now provided by a new Riley Stoker Corporation boiler, from which the steam first goes through a new 2500 k.w. General Electric topping turbine at 520 lb. throttle valve pressure and 670 degrees temperature. Exhausting from the topping unit at 150 lb. pressure, 450 degrees, it then goes through a Schutte & Koerting desuperheater—leaving the steam with about 10 degrees superheat but pressure unchanged—to a header that supplies steam for further utilization including powering two 1000 k.w. Allis-Chalmers generators, 18-unit battery of dry kilns, sawmill, and shop. The Allis-Chalmers generators were, until cutting in the new addition, the plant's entire facilities for generating electric power.

New Plant Uses Less Fuel

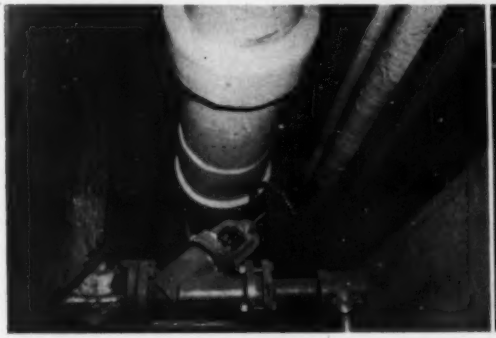
Regarding performance of this modern power plant, Mr. Nutting told The LUMBERMAN, "We find our new boiler, operating at 550 lbs. gauge pressure, to date is actually using less fuel to generate 100,000 lbs. of steam per hour than our two old boilers consumed in producing approximately the same hourly capacity at 150 lb. pressure. You might say that we are making twice as much steam in the one new boiler as we did in the two old ones with



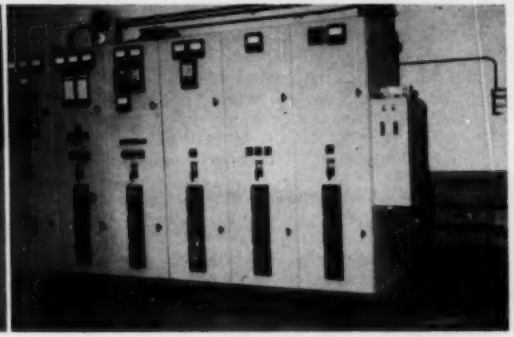
Western Precipitation Corp. cinder collectors removing fly ash and cinders from flue gases for return to combustion chamber.



Sumner 65 hog, powered with 250 h.p. G.E. motor, converts the low utility pieces of wood from sawmill into hog fuel for operating power plant.



Schutte & Hoerting venturi type desuperheater, on 150 lb. pressure steam line, for desuperheating steam from 630 to 375 degrees.



Westinghouse control panel with 2400-volt switch gear. Panel includes generator and exciter control for 2500 k.w. G.E. turbogenerator, synchronizing equipment for outside power and station auxiliaries, air circuit breakers, and voltage regulator.

less fuel so far as kilowatt generation is concerned, as we produce 2500 kilowatts through the new turbine by passing 100,000 lb. per hour of high pressure steam and having a 100,000 lb. of low pressure steam to use in our old system.

"Our expansion program was really designed on the basis of having an excess amount of fuel for a few years to come, as it is our thought that as time goes on we shall make further refinement from our waste that will naturally reduce the amount of fuel that will be available. Consequently, we will be using to a limited extent our sawmill refuse burner to consume the waste that is not now needed. Our burner was remodelled early in 1948 so that it is practically smokeless and does not throw cinders out through the screen."

The new 2-drum Riley Stoker Corporation boiler, with peak loading of 120,000 lb. of steam per hour, was installed by Bumstead-Woolford. Boiler Contractors of Seattle and Portland, as prime power source replacing two Stirling-type 170 lb. 10 degree superheat PSMD boilers which henceforth will be maintained as emergency stand-by units. The Riley boiler has a 4-cell dutch oven unit, using LaClede Christy fire brick. It is designed for 600 lb. steam pressure to furnish steam at 520 lb. pressure and 670-degree temperature at the main turbine throttle.

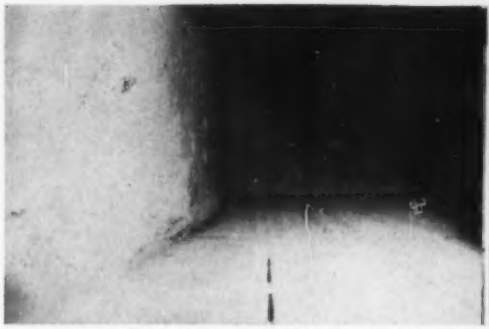
Cinders and Gases Eliminated

Furnace air is forced, by Sturdevant fan powered with 75 h.p. Westinghouse motor, through a Riley air heater and then under Olympic Foundry Company series 7500 Tawlk water-cooled dutch oven grates to the combustion chamber. The boiler combustion gases are removed by a Buffalo Forge Company induced-draft fan powered by 300 h.p. Elliott turbine and discharged through a 60 ft. stack to freely liberate the gases. No smoke or solids accompany the exhausted gases, according to Mr. Weiser; only clear gases are discharged from the stack. Cinders are eliminated from combustion gases by a Western Precipitation Corporation cinder collector and are reinjected into the boiler combustion chamber for complete burning. Hence the cinder problem has been eliminated at Medford Corporation plant.

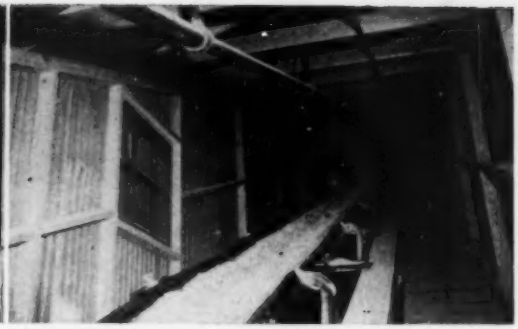
Boiler operations are carried on by automatic controls, using combination of Foxboro and The Hays Corporation recorder-controllers and indicating controls, except that fuel feeding is by manual control. The dutch oven deck is air cooled by means of a separate fan.

Boiler feedwater pump facilities consist of two Warren 1510 ft. head multiple stage pumps, one powered by 150 h.p. Westinghouse electric motor and the other by 160 h.p. Elliott steam turbine.

For operating the new power plant system, raw-water makeup runs about 10%—at 100,000 lbs. of steam per hour raw-water makeup approaches 10,000 lbs. The two 1000 k.w. turbogenerators were previously using jet condensors. But to control raw-water makeup to about



Interior of a dutch oven cell showing LaClede Christy refractories. Tawlk water cooled grates are used in the cells.



Diagonal housed conveyor showing American 24" belt, riding on Link-Belt troughing rolls, carrying fuel to boiler room. Viking sprinkler system fire protection unit at top.

10% in the new system, these condensors were replaced with surface condensors, making the total steam condensate available for re-use as distilled water. It is not considered economical to return the condensate from the miscellaneous mill auxiliaries, which, along with the blow down, amounts to about 10% of the generated steam.

A Permutit de-aerating heater of 120,000 lb. per hour capacity removes air from the water, before reaching the boiler, to eliminate oxidation of boiler tubes and drums as well as heating feed water to 220 degrees. A Hall conditioning system treats the small amount of makeup water used.

Sawmill exhaust steam returning to the power plant goes through an oil-separation tank and then through anthracite coal filters for complete removal of oil before the condensate returns to the boiler. This oil filter system was supplied by the Northwest Filter Company of Seattle.

The new 2500 k.w., 2400-volt G.E. generating unit powered with G.E. topping turbine acts as a steam pressure reducing station to convert the 500 lb., 670-degree (200 degrees superheat) steam to 150 lb. pressure 450-degree steam for subsequent powering of the two 1000 k.w. generators and manufacturing plant steam facilities. In reducing the steam's heat and pressure, the G.E. topping turbine generator develops 2500 k.w. of electric power. A 120,000 lb. per hour steam reducing station, with Fisher valves and Foxboro controls, is used in connection with the topping turbine that is in itself also a reducing station. When the topping turbine exhaust does not supply the 150 lb. header with the maximum steam flow demand, the reducing station automatically cuts in to supply additional low-pressure steam for the 150-lb. header. The reducing station itself does not cut in when the turbine is operating at full load. Steam from either or both the topping turbine and reducing station passes through a venturi type Schutte & Koerting Company desuperheater set to maintain about 10 degrees superheat in the 150-lb. mill header.

The two 1000 k.w. Allis-Chalmers turbogenerators supplied all of the mill's electric power generating requirements before addition of the G.E. generator. Generating voltage of all the generators is 480. This voltage, now as in the past, is stepped up to 2400 volts by transformers. At this voltage the new generator ties into the system through Westinghouse switch gear, which was installed by The Tide Co., industrial electrical contractors of Tacoma.

Key plant personnel concerned with power plant operation, left to right: E. G. Gillespie, general superintendent; Hans Holt, chief engineer; Ray Fernlund, power plant operator.

Surplus Power for Public Distribution

Until starting up the enlarged power generating system in March this year, the company's generating facilities were overloaded by requirements of the manufacturing plant. But now the combined output of the three generators, with normal rating of 4500 k.w., provides power in excess of the 2600 k.w. used in the plant and a balance of power for public distribution.

According to Mr. Nutting, the California-Oregon Power Company installed a 3-1000 k.v.a. transformer sub-station on Medford Corporation property and since August the power company has been taking "all of our excess kilowatts." As for the month of September, he says, "We sold them 1,750,000 kilowatts that we produced over and above our requirements. So long as the power company will accept off-peak kilowatts along with the peak power, we will in all probability be able to supply them 12 months out of the year with approximately the same number of kilowatts as was supplied in September."

"Wood by-products from the lumber manufacturing operations are first segregated removing the material which can better be utilized

There's no "iron curtain" at Kenworth. The point is—at Kenworth we're receptive. Sure, we've had a lot of experience building trucks, but we don't think we know it all. It's always open house at Kenworth for new ideas—especially when those ideas originate with the man who's going to operate the trucks. For more than a third of a century, Kenworth engineers, field service men, and distributors have been working with truck operators to solve specific transportation problems—to build trucks for the job. Working together we can fulfill your needs to your profit—and demonstrate again that ***there's more WORTH in*** **KENWORTH.**

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for remanufacturing into lath, car strips, handle and shade roller stock; and waste suitable for use as domestic fuel is subsequently removed. The remainder is hogged for use as power plant fuel while building up winter fuel storage or when the mill sawdust and planer shavings are not coming to the boiler in sufficient amount to meet daily requirements of the furnace.

A Sumner 65 hog, powered by 200 h.p. G.E. motor, has been installed in the conveyor line between sawmill and burner for converting all unsalable waste wood from the sawmill into hog fuel. A Stearns Magnetic Manufacturing Magnetic drum installed ahead of the hog picks up tramp iron which would otherwise fall into the hog with the wood and cause considerable damage. The Diamond 45 hog which was used for hogging fuel for the former power plant is now used as a stand-by unit.

Fuel Handling Facilities

Hog fuel from the Sumner hog drops to a box-link chain transfer transporting it some twenty feet to a 310 ft. long, 24 in. wide belt conveyor taking the fuel past the power plant to a 50 ft. same width belt conveyor inclined upwards at 24 degrees. This belt discharges the fuel to either a box-link chain conveyor feeding the dutch ovens, or to No. 678 Link-Belt chain conveyor, with 2 inc. angle flights, taking fuel to outside storage. This conveyor, located 30 ft. above the ground, passes under a cyclone receiving shavings from the planing mill. Here the shavings drop from the planing mill. Here the shavings drop into the conveyor which already carries sawdust and hog fuel enroute to storage. These three types of fuel become mixed together before feeding to the boiler.

The conveyor structure over storage area is 120 ft. long and built entirely of concrete, the concrete conveyor starting at shavings cyclone. Conveyor trough is 20 by 25 in. inside dimensions. The 678 Link-Belt rivetless conveyor chain carrying fuel to storage travels 60 l.f.p.m., has 208 ft. centers, and is powered by a 30 h.p. Westinghouse motor through 100:1 Sumner reduction gear.

From storage to power plant, fuel is first transported by Link-Belt 678 chain riding in 20 by 25 in. concrete conveyor trough, the top of which is at ground level. This 200 ft. long conveyor is covered over with 3 ft. long plank except when storage fuel is to be used for generating power. Storage fuel is piled and fed back into the conveyor by tractor-mounted bulldozer. A 20 h.p. Westinghouse motor, driving through Sumner 80:1 reduction gear, powers this conveyor chain. A 3500 unit storage area is provided where the fuel is stored by the dozer. This amount of fuel is estimated to be sufficient to operate the boiler at capacity for one month.

From the 678 chain conveyor, fuel from storage feeds onto a 24 in. rubber-belt 90 ft. conveyor leading upward at 18 degree incline toward the power plant, discharging the fuel to dutch oven feed chain.

These rubber-belt conveyors, including the main 310 ft. unit from near the hog and both inclined conveyors, use American Rubber & Manufacturing Company rubber belting bought from The Lorenz Company. The loaded belting travels on Link-Belt troughing rolls and returns on Link-Belt idlers. The longest of the three belt conveyors travels 320 f.p.m. and is powered with 7½ h.p. Westinghouse gearhead motor. Of the two inclined conveyors, the 50 ft. unit receiving from the main conveyor is powered by a 5 h.p. Westinghouse gearhead motor, and the other powered at 300 f.p.m. by 3½ h.p. Westinghouse gearhead motor.

The Medford Corporation's use of concrete fuel conveyors and topping turbine to conserve steam is thought to be the original such installation in the Northwest lumber industry. Extensive travels throughout the area by The LUMBERMAN editors have not previously revealed such an installation, nor has recent inquiries to power plant equipment firms disclosed information concerning other installations of this type.

Construction work on the Medford Corporation power plant project was by Bessonette & Graff, Medford contractors who also designed and built the concrete fuel conveyors.

Corydon Wagner New President of National Association

Corydon Wagner, outstanding West Coast lumberman, has been elected President of the National Lumber Manufacturers Association for 1951. H. M. Seaman, Executive Vice President, Kirby Lumber Co., Houston, Texas, and retiring President of the Association, has been named Chairman of the Board.

Incoming President Wagner has spent his entire career in the lumber business. He is vice president and treasurer of the St. Paul and Tacoma Lumber Company, Tacoma, Washington. A former president of the West Coast Lumbermen's Association, Mr. Wagner has been active in the National for many years, serving in 1942-43 as a regional vice president and last year as first vice president. In 1945 he was elected President of the American Forest Products Industries, Inc., and served as a trustee of that group from 1941 to 1947.

Chairmanship of the Board is a new position created by the directors at the recent Houston, Texas, meeting. An advisory policy committee was also formed; its membership will include the chairman of the board, the president and first vice president, plus all past presidents of the association. A. J. Glassow, vice president and general manager, Brooks-Scanlon, Inc., Bend, Ore., who served as NLMA president prior to Mr. Seaman, becomes chairman of the newly created policy group.

CORYDON WAGNER

On his return to the Northwest following his election as President of the NLMA, Mr. Wagner told The LUMBERMAN that one of the objectives of the National during his administration would be to endeavor to do some effective work in the field of fire codes. Work should be done in this direction, he said, in order that forest products are not crowded out of their rightful places. He also said that in his judgment the association could well afford to interest itself in such matters as the great damage resulting to timber killed by reason of large dam construction.

THE HUSS CHRONICLE

From the Files of

THE LUMBERMAN, JANUARY, 1921

Walter B. Nettleton, President, Nettleton Lumber Co., addressing the Seattle Association of Credit Men, said 62 percent of the privately owned timber in the state of Washington had been cut. Speaking of the depressed condition of the industry he said the mills of the West would weather the crisis in good shape because the industry was sound financially. He said the fact that southern mills were cutting out was a factor that would help the western lumber industry.

A. J. Krauss of the Krauss Bros. Lumber Co., New Orleans, opened an office in Seattle. Allen Hemphill was named to represent this office in the Chicago territory.

Paul H. Johns, Waterway Mill Co. Tacoma, was elected president of the Tacoma Lumbermen's Club, succeeding Ernest Dolge.

A national conference of lumbermen was held in Chicago at the call of Edward Hines. R. B. Goodman, Wisconsin lumberman was named chairman and I. H. Fetty was named secretary. The major resolution adopted was one urging the National Lumber Manufacturers Association to launch an adequate publicity program for the American lumber industry. Eight billion feet of production was represented at the meeting.

The Pagosa Lumber Co., Colorado and New Mexico lumber manufacturers, announced the sale of a $200,000, 8 percent first mortgage bond issue.

A. H. Landram, salesmanager, St. Paul & Tacoma Lumber Co. went East to visit company sales representatives.

T. J. Humbird was re-elected president of the Weyerhaeuser Sales Company.

Maj. Swift Berry left the Bureau of Internal Revenue to join the staff of Hall, Kellogg & Co. of Chicago as Western representative.

Minnesota Loggers Association has opened offices in the Lumber Exchange Building, Minneapolis, with Roy V. Norbeck in charge.

Sterling Lumber & Investment Co., Denver, a retail firm announced the opening of a wholesale department.

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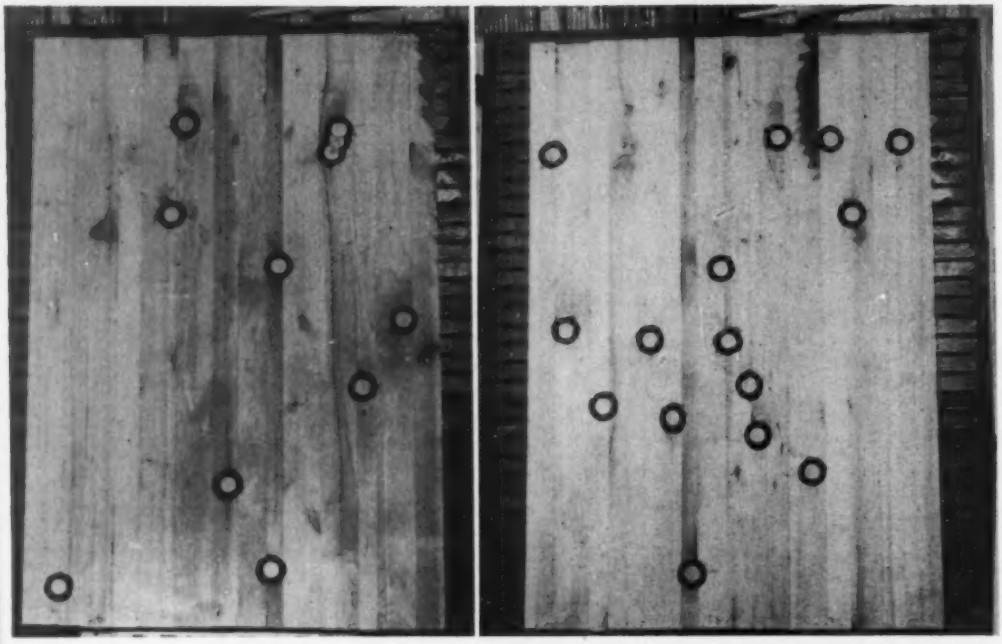


Illustrating a TYPICAL-MINUS panel composed of fourteen strips ranging in width from 1¼" to 3" wide, which was assembled and glued without regard to defects. Fifteen plugs were used to repair as many defects on one face (right), and eleven used to repair nine defects on the reverse side (left), which indicates the prudence of repairing from both sides. The average plugging time for inserting twenty-six plugs was found to be approximately 130 seconds.

CORE PANELS WITHOUT WASTE

By ROY B. PETERSON

CONSULTING ENGINEER, MEMPHIS, TENN.

Mechanization and improved mechanical efficiency offer the lumber industry the most logical solution to the ever increasing problem of higher wage scales, reduced hours of employment, sharp competition, price levels and the availability of basic raw materials and other elements. This has taxed the ingenuity of machinery producers, inventors and other technicians in using it as a means to combat these factors. Increased output seems to be their prime objective and the conservation or improved utilization of a raw or semi-processed product or improvement in the quality of the end product often receives secondary consideration. Unfortunately, all too few mechanical devices, machines, new or improved techniques, or other devices fail to incorporate all these most important and vital principles and when such is presented impressive improvement in production costs are often achieved.

In the processing of lumber into core panels, the conventional or usual method is to rough surface, cross cut and rip boards into strips of the proper length and width, and during these operations remove defects, assemble and glue into a panel, finish surface, and finally apply the veneer. The amount of machinery and manpower involved depends on the number of defects removed which are proportional to the grade of lumber processed.

No two single boards would ever contain the same number, type or kind of defects or located in the same places. Seasoned judgment, experience plus constant vigilance, must be used by all manpower in removing them or else the waste will prove excessive and costs increase.

The cliche "that profits are made or lost at the cut off saw" all too often becomes an AXIOM.

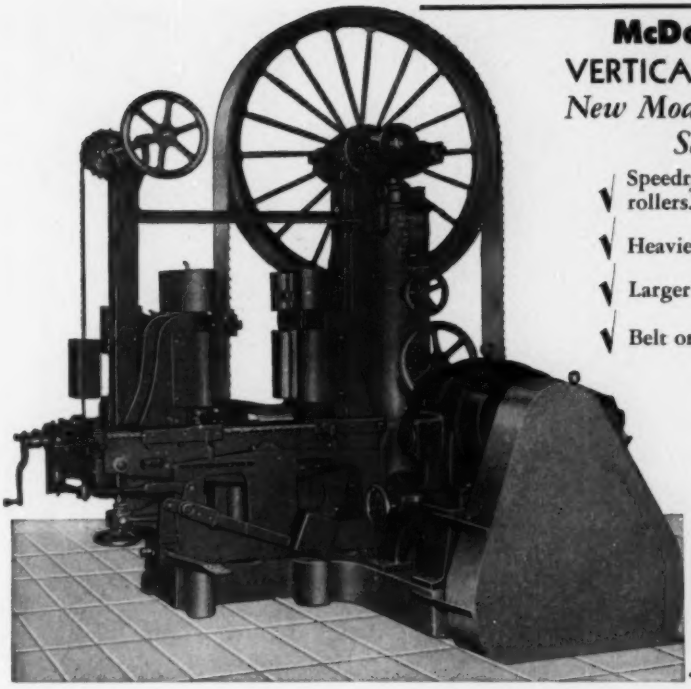
Plugging the Defects

Nickey Brothers Inc. of Memphis, Tennessee have developed an outstanding method in the production of core panels by plugging the defects and reducing operations to a minimum; thereby gaining maximum raw material utilization, lowering manpower costs, without sacrifice in the quality of the end product.

This technique repairs the defects by removing them by boring and inserting a plug into the glue treated hole and overlapping them in the repair of defects of large or irregular shape. The plugs are of the same species and moisture content as the panel.

An ingenious automatic machine is used which in a single operating cycle of four seconds, removes the defect by boring, produces a plug of proper size, treats the hole with resin type glue, and inserts therein a plug with the grain running parallel with the core. The machine is a Raiman unit designed in Germany and widely used in Europe.

The operation is performed after



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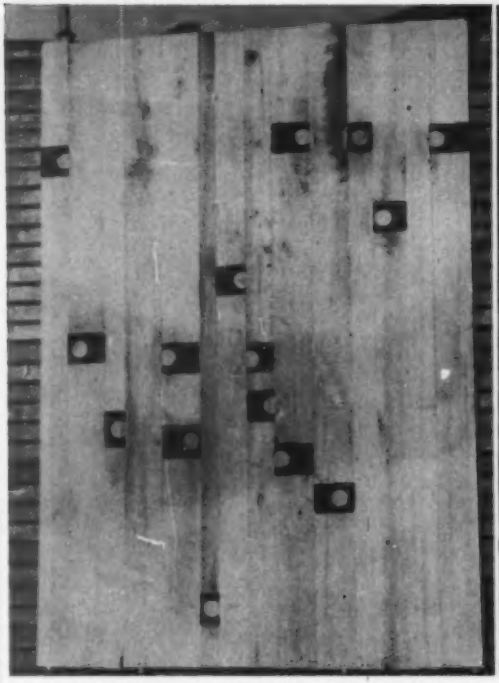
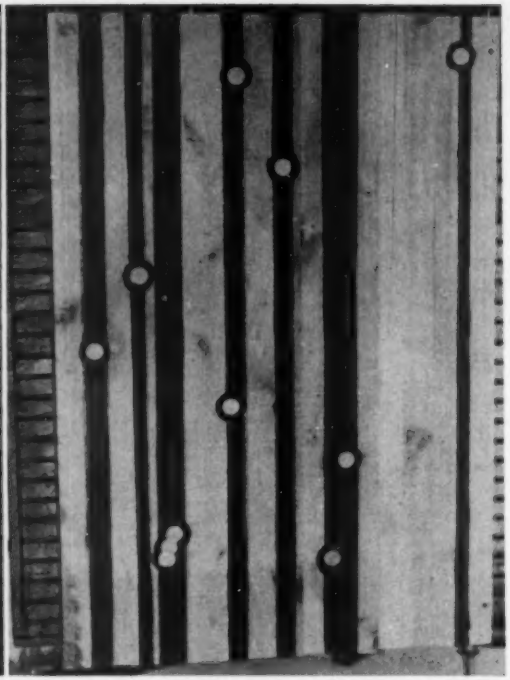


Left: (Core A) TYPICAL MINUS shows fifteen defects which may be removed by cross cutting. It would require thirty separate saw cuts for removal, producing 26 short ends. The actual loss in area shown in black is 88.45 square inches, or .61 square feet, but twenty seven short ends are accumulated, most of which are under six inches in length, having no salvage value.



Right: (Core A) TYPICAL MINUS illustrates the loss in area should the processor decide to remove the defects by ripping prior to the assembly and gluing operation. In this case seven strips would be eliminated, which are indicated by the black stripes, this requiring at least fourteen extra ripping operations. The surface area lost is 618 square inches, or 4.30 square feet.

the previously rough surfaced, cut to length and ripped strips are assembled and glued together by the electronic process, using a machine unit designed and produced by the Frisch Corp. known as a hydraulic edge bonder which operates in conjunction with a high frequency generator, is produced by the Girdler Corp. The plugs are 3/8" thick, and 1 3/8" in diameter, as experiments have proved this size most practical. Plugs are overlapped as required and inserted on both sides of the panel, as many defects do not extend through its thickness. Glue is applied to the bottom as well as the sides of the hole and the inserted plug or plugs thus become an integral part of the panel. The plugs are set approximately 1/32" higher than the core panel as a safe guard against low plugs which otherwise might not finish flush with the balance of the panel in the finishing or final surfacing operation which follows after the glue has been given an opportunity to dry. They are then ready for the application of veneer.

A Simple Operation

No special skill or knowledge is required on the part of the machine operator as the boring bit is simply aligned with the defect and a foot treadle pressed starting an automatic cycle of operation. The plugs are produced from strips or slats which

This is the machine which removes the defect, produces the plug, treats it with glue and inserts it in its proper place.

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SINCE the 100 H.P. Murphy Diesel shown above was put to work powering the head rig of the Southwick Lumber Co., Willits, California (it's now in use driving a large edger), it has seen a lot of hard work . . . but it's still going strong giving good economical, dependable service. J. R. Southwick, owner, says, "We found that this Murphy Diesel engine was most economical and reliable."

The economy and dependability of Murphy Diesels are the result of an exclusive combination of superior design features such as "true" diesel operation . . . unit fuel injection . . . four valves per cylinder . . . hydraulic servo-type governor . . . dual overhead camshafts and many others.

Full details on Murphy Diesel design are given in the booklet *"10 Questions to Ask a Diesel Engine Salesman."* Ask your Murphy Diesel Dealer for a copy or write direct.

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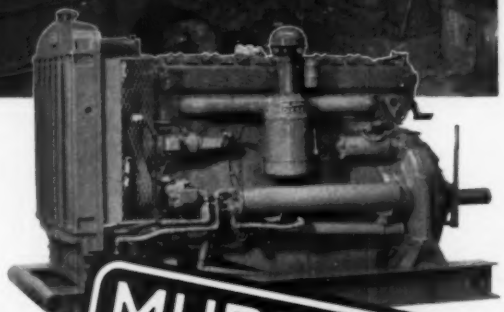


Heavy duty power
for the lumber industry

Murphy Diesel Engines and Power Units for the lumber industry are available in sizes from 90 to 220 H.P. Generator Sets 60 to 133 K.W.

are fed into a magazine, one strip furnishing material for a number of plugs, depending upon its length. Other than replacing used strips in the magazine and keeping the glue reservoir filled, no other attention is needed. The operating cycle is repeated as required until all defects are corrected. Three horsepower is used, and core panels up to forty-eight inches in width and unlimited length may be processed.

Operations preceding the assembly and gluing of the panels are simplified as it is only necessary to rough surface, cut to length for the size panel in process and rip in accordance with the practice of the processor to minimize such defects as cupped boards without accumulating excessive quantity of short, undesirable cuttings which are always found where the defects are eliminated by cross cut or rip sawing or a combination of them. This permits the profitable processing of lower lumber grades such as, number two B (log run) popular or equivalent in other species by securing the utmost in surface area without increasing, and often decreasing processing operations.

Typical Core Panels

In an effort to determine the possible savings approximately one hundred core panels were examined and three selected with respect to the number of defects contained. One was considered as TYPICAL PLUS—one TYPICAL—and one TYPICAL MINUS. Because of the obvious difference in cores with respect to the number of defects and their location some difficulty was experienced in the determination of a pattern indicating a "typical" core panel. After discussion with competent and experienced persons it was decided to use both the number of Defects and their location as the suitable guide, and the following was used as a yard stick—

TYPICAL PLUS—less than 10 defects—2 sides
TYPICAL—10 to 15 defects—2 sides
TYPICAL MINUS—over 15 defects—2 sides

The finished size of the core panel illustrated is 32" x 48" x 1" having a surface area of 1536 square inches or 10.66 square feet, assembled from No. 2B and better kiln dried poplar.

Loss by Ripping and Cross Cutting

In the removal of defects by cross cutting it would appear at first glance that the actual loss is small in comparison with the core panel area but the problem of short ends must be given serious consideration. From the foregoing it was found that an area loss of 1116 square inches or 7.75 square feet would be lost by ripping or 150.45 square inches or 1.04 square feet would be lost in the removal by cross cutting, out of a total panel area of 4608 square inches or 31.98 square feet. This is based upon consideration of both sides of the panels, with removal of defects by ripping on one side and the reverse side by cross cutting. It is logical to assume that the total loss in area would be the sum of the removed areas on both sides as many are defects on one side only, but must be removed. This amounts to 1266.45 square inches or 8.8 square feet, or 28% loss, less the collective area of the salvageable short ends. It is obviously difficult, if not impossible, to determine the off set in the utilization of the salvageable short ends, which might lower the 28% loss. In considering this situation in the light of utilization, it is possible that some area recovery could be made, but it is not logical to assume that a recovery of as much as 50% could be made, and in most cases this figure would be found definitely much lower because of the greater proportion of TYPICAL-MINUS panels and other factors. Other factors involved in the recovery or reprocessing of the salvageable ends such as increased labor, storage, handling and others, often increase costs to the point where the recovery is not practical, as the cost of such exceeds the value of the material salvaged.

Advantages of Plugging

The plugging method gives promise of entire elimination of this most undesirable condition by simply repairing or mending the defects and thereby maintaining lengths suitable for processing given size panels at a given time, by using less cut off and rip equipment, simplifying and consolidating the preceding processing operations, and reducing the necessity of experience and judgment on the part of the rip and cut off sawyers. Thus the production of core panels is accelerated, man power costs reduced, without sacrifice whatsoever in the quality of the end product produced.

By using higher grades of lumber to decrease the number of defects would, in turn, decrease the number of repairs by plugging with the decided disadvantage of using a higher priced raw material which may be limited in its availability. Despite the reduction in defects, it does not mean that they would be eliminated and would require either removal or repair by some means.

Widespread Applications

The application of defect plugging is definitely not limited to the processing of core panels and similar products. To the practical progressive wood processor many additional uses will be obvious.

To attain the ultimate in utilization and conservation of a valuable natural resource many have advocated both scientific cultivation and management of our forests, and further to integrate its industries, to gain the fullest possible forest consumption by harvesting a single crop and finding a use for the entire cut, using the waste produced by one process and re-processed by the next. In the end, each industry using such material which will provide them with a basic raw material or a by-product thereof and putting to use the entire contents of a tree or forest is not only providing lumber, veneer and similar products, but pulp, fiber board, plastics, rayon, wood sugar, alcohol and various other products or by-products, but until this conjecture becomes a reality in the unforeseeable future, the practical wood processor must seek his salvation from production costs by mechanization, acceptance and use of improved machinery, techniques and methods.

Buys Control of Plywood Plant

Announcement has been made that A. W. Braun of Olympia, Wash., and associates have purchased the controlling interest in the Woodlawn Plywood Company of Hoaquiam, Wash. Mr. Braun, president of the Northern Timber Co., heads the Woodlawn company. Ted Stolesen, former president, remains a director. Other officers are: A. D. Braun, Olympia, vice president; Mrs. Irene Ensign, Olympia, secretary-treasurer; Mrs. Freida Reid, assistant secretary-treasurer, who remains with the firm; Floyd Westman, Olympia, sales manager; George C. Gustafson, superintendent, and Antone Bjorne, assistant manager. Bjorne and Gustafson formerly were with the firm.

Herbert B. Cooper, Cooper-Morgan Lumber Company, Portland, Oregon, has been appointed to Commission of Public Docks, Portland, by Mayor Lee. Cooper succeeds John A. Zentbauer.

TWO NEW UP-TO-DATE CALIFORNIA SAWMILLS

Monterey, Calif., has long been noted for its Cannery Row, where a large part of the world pack of sardines are packed, but it won't be long before Arcata, Calif., is noted for its Sawmill Row.

Sawmill Row in Arcata, starts on the outskirts of town, runs north along Highway 101, then East along Highway 299. Among the dozen or more sawmills in about four miles are some of the most modern and up-to-date in California.

Two of these mills are Arkley Lumber Co., and Pacific Stud Co. Both are stud mills specializing in the manufacture of 2 x 4 studs, 8′ long.

The Arkley Lumber Co. was organized by R. P. Arkley, for 45 years in the lumber business, many of which were spent with the St. Paul & Tacoma Lumber Co., and the past 10 years in Eugene, Ore. Arkley is general manager and sales manager of the company, and his son, Robin, is superintendent.

Logs are purchased in the open market, at the pond, where they are bucked by a Blue Babe electric powered chain saw, purchased from Riley & Williams, Inc., Eureka. The log well is built of concrete, and is kept free from bark and sawdust by a sewage disposal pump, which takes the material out to where it can be burned.

Chains for the log lift were provided by the Portland Iron Works, and the log lift, like everything else in the mill is electrically powered—that is, what isn't powered by air.

The double circular head rig consists of two 54″ saws driven by a 200 h.p. motor. The carriage was supplied by the Sel-Set Co., needs no setter, and is equipped with air flippers. It has 60″ openings, and is heavily built, with four trucks. The head blocks were built by Monarch Forge & Machinery Works, and the set works are Sel-Set, powered with a 7½ h.p. Gardner-Denver air motor on the carriage.

The carriage drive is powered with a Soule-Spee-D-Twin engine air-driven at 100-lbs. Air for the mill is supplied by a 550 cu. ft. per min. compressor.

Edger is an 8 x 72″ Andrus, powered with a 150 h.p. motor, and there is a two saw trim saw.

Top: Sawmill of the Arkley Lumber Co., Arcata, Calif. Center: L. R. Arkley, general manager and sales manager, and his son, Robin Arkley, superintendent.

The new sawmill of the Pacific Stud Co., Arcata, Calif. Inset, Key personnel, Pacific Stud Co., left to right: Marion L. Heaton, sawmill superintendent, Dave Hauenstein, millwright, J. E. Farr, millwright and electrician and Sam McCaughey, general manager.

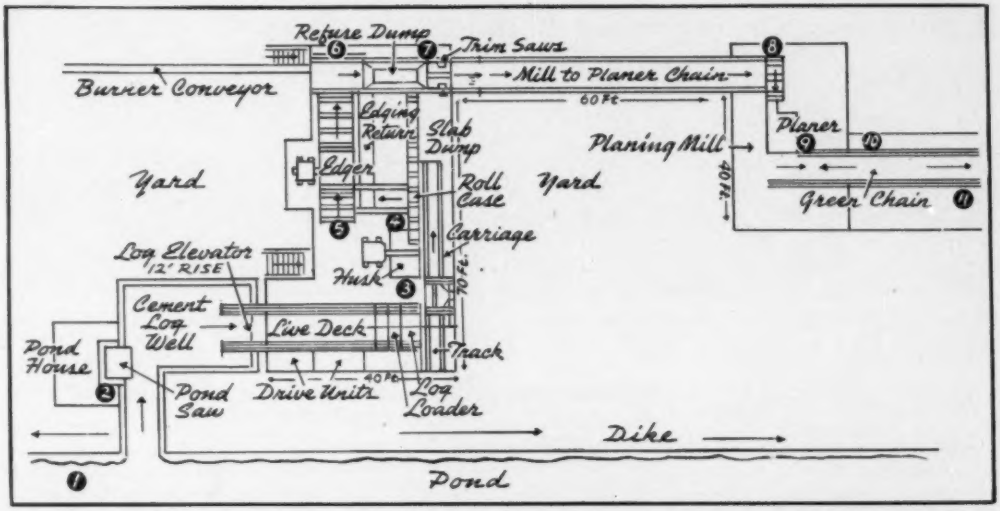
Lumber goes right down the green chain to an Andrus feed works to a 6 x 13″ four-speed, electric control Andrus planer, with a speed of 350′ per min., and is then shipped either by rail or by truck. A Hyster lift truck handles lumber around the yard. General Electric motors are used throughout the plant.

Arkley Lumber Co. mill averages about 50M′ per day with 13 men.

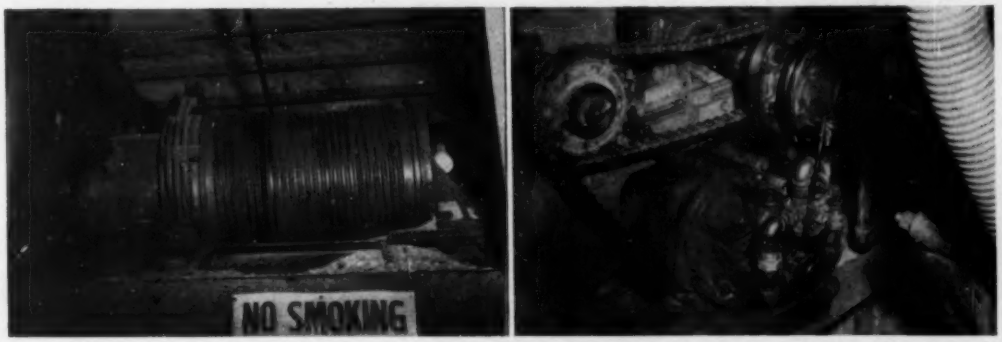
Pacific Stud Co. of which Sam McCaughey is general manager, is another fast, efficient, electric and air powered plant.

Logs are purchased on the open market and dumped into the 17 acre pond

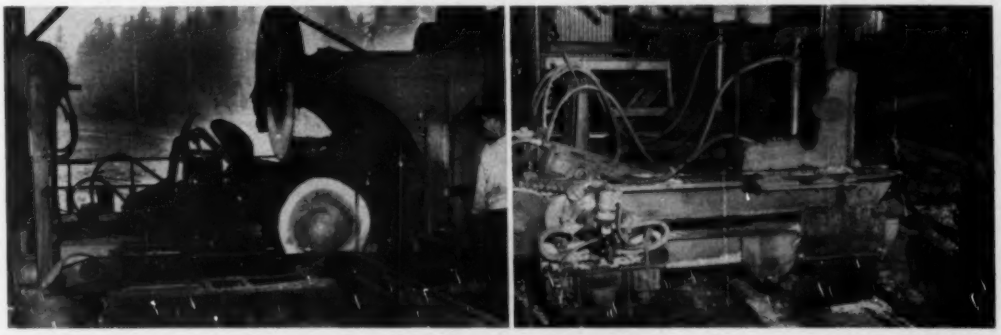
All the motors in the plant are General Electric. The log lift was built by Sutherlin Machine Works, Sutherlin, Ore., and is powered with a 7½-h.p. motor.



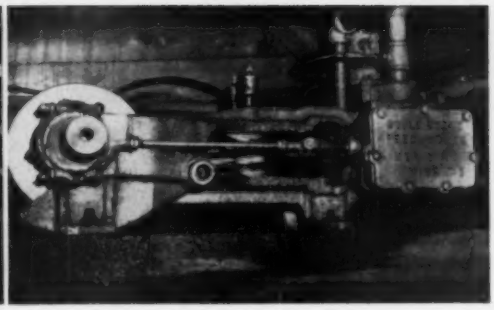
Floor Plan of The Arkley Lumber Co.'s mill, Arcata, Calif. Location of the following men are indicated on the plan: 1. Pond man; 2. Pond saw man; 3. Sawyer; 4. Off-Bearer; 5. Edgerman; 6. Lines up for trimmerman—a spare man for the mill too; 7. Trimmerman; 8. Planerman; 9. Grader; 10. Green Chain; 11. Green Chain.



Left: Gardner-Denver, 15 h.p. air motor driving the carriage at the Pacific Stud Co., and also at right: a Gardner-Denver 7½ h.p. air motor drives the feed rolls for the Allis-Chalmers edger, forward and backward.



Left: At the Arkley Lumber Co., is shown the carriage with Sel-Set works, activated by Gardner-Denver air motor. Head blocks are from Monarch Forge & Machinery Works. Right: The Sel-Set feed works, driven by 5 h.p. Gardner-Denver air motor on the Salem Machine Works carriage, Pacific Stud Co.



Left: Blue Babe pond saw, purchased from Riley & Williams, Eureka, at the Arkley Lumber Co. Right: Saula Spee-D-Twin engine, powered by air, driving the carriage feed works, Arkley Lumber Co.

Air for the mill is provided by a 350 cu. ft. per min. Gardner-Denver air compressor.

There is a Simondson-type log turner, and the head rig, built by Sutherlin, is double circular, with a 200 h.p. GE motor on the bottom saw, a 75 h.p. GE on the top saw, and a 25 h.p. motor on the chipper.

The carriage, with 72″ openings, built by Salem Machine Works, has a Sel-Set set works, powered with a 5-h.p. Gardner-Denver air motor. The carriage feed is powered with a 15-h.p. Gardner-Denver air motor.

The edger is an Allis-Chalmers, driven by a GE motor, and is a 21 saw machine, 6 x 10. A 7½-h.p. Gardner-Denver air motor drives the feed rolls to the edger, both forward or backward.

After going through the trimmer, the studs are carried down a sorting or green chain to a Yates-American planer.

Lumber is handled about the yard by a Hyster fork lift truck. The burner is a fifty-footer.

Personnel of Pacific Stud Co. came from Oregon, mostly. They are Marion L. Heaton, superintendent; J. E. Farr, millwright, and electrician; and Dave Hauenstein, millwright.

The mill produces 70M′ of 2 x 4 studs per shift with 14 men.

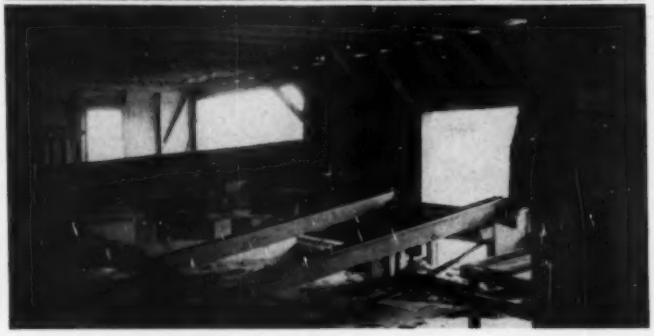
New Southern Sawmill

Fire and cramped space were the basic reasons for the relocation and rebuilding of the Evans Lumber Co. of Nashville, N. C. At the neat, spacious new location east of town, the company has had the planing mill in operation a year, but the sawmill has only recently begun sawing logs.

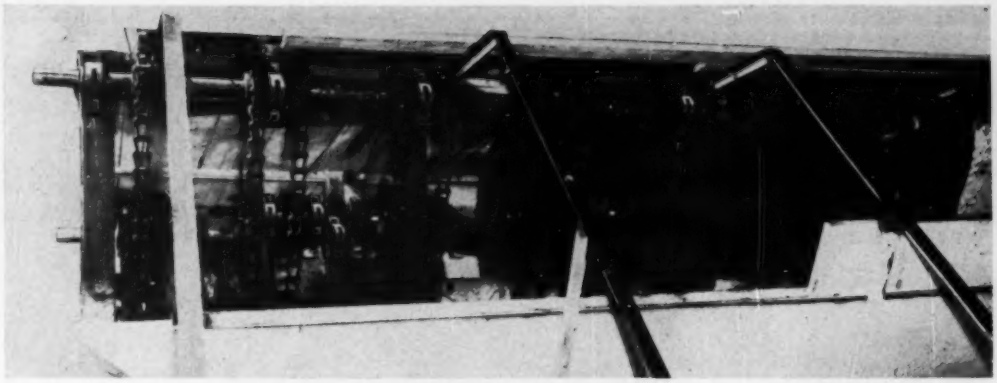
Under the management of John Evans and the superintendence of S. L. Brantley, the company has built up a fine primary manufacturing plant, with a lot more ideas in the offing. The sawmill is presently circular, but a bandmill is one of first future changes to be considered.

Present equipment includes a Wheland 2-man carriage with steam shotgun feed (air setworks will probably be added to save one man); Wheland undercut trimmer with one stationary and four movable saws; a lumber sort with 19 openings for sorting 4/4 boards to grade and length with a couple openings for 8/4 stock; Ross fork lift truck; 3-track Moore cross circulation kiln of 90 M. capacity; S. A. Woods Model 412 planer.

All lumber is being shipped on company-owned trucks, mostly to the Washington, D. C. area. Trucks include a 3-ton Mack, 3-ton White, and 2-ton Chevrolet.



Upper left: View of the dry end of the Evans Lumber Co., Nashville, N. C., with Moore kilns to the right, dry storage shed in the foreground, and a corner of the planing mill at extreme left. The sawmill can be seen in the right background. Lumber transfer between dry shed and planing mill will be with Ross lift truck. Upper right: S. L. Brantley, mill superintendent. Below: Through the opening at the right will come green lumber from outlying ground mills, entering the sawmill between headrig and trimmer. The same trimmer will thus handle lumber from portable mills and from the headrig at the Evans Lumber Co.



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Z-type seal—MICROLOCK ADJUSTMENT

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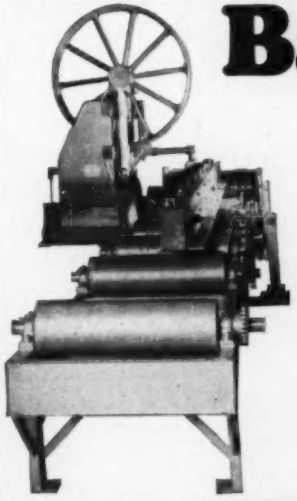

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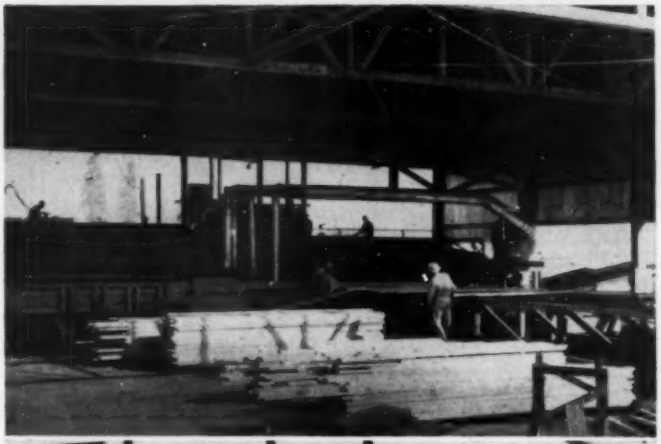
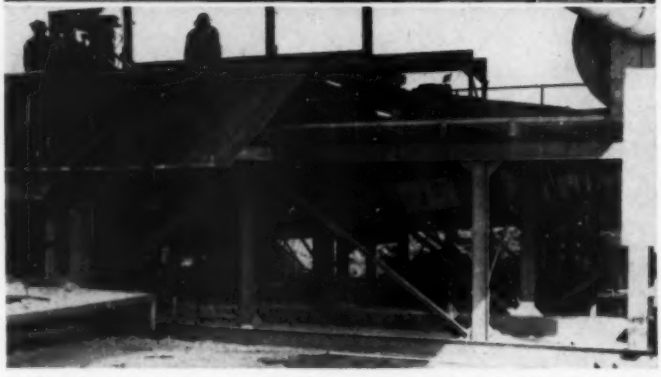
Top: All of the plant's processing components are included in this interior view. At left, above the mill floor, are gang headrig, edger, and cut-off saw. At left near head of green chain, below main mill floor, is the Yates planer receiving rough lumber from green chain and returning it as finished lumber. Bottom: Mill structure as seen from head end of green chain at point about opposite the planer. Leading down from board kicker (behind cut-off saw) is lumber skirt on which the boards slide down onto green chain at left foreground. Steel construction of the mill's framework, manufactured by Mill Engineering & Supply Co., shows up at right of apron. An American Sheet Metal Works blower system at upper right, removes planer shavings from the plant.





LOG GANG MILL

NEW PLANT CUTTING SMALL LOGS WORKS IN CONJUNCTION WITH BAND MILL IN OREGON OPERATION

Since last July Mt. Jefferson Lumber Co., Lyons, Ore., has manufactured its small logs in a gang sawmill especially designed for efficiently converting this size of logs into 2x4 and 2x6 lumber. This specialty mill complements the company's 90M foot per day band sawmill which has carried on production here for the past 6 years, having replaced a former mill of this company which burned in 1943.

Logs up to 24" butt diameter are manufactured in the small, compact electric powered mill at rate of 35M feet per day, about 85% currently cut in 2x4s and 15% in 2x6s.

The gang mill, housed in 75'x80' Timber Engineering Inc. truss type building, was designed by Walter D. Miller, manager. Included in the mill are an 18"x26" Mill Engineering & Supply Co. gang headrig, 6"x42" Salem Equipment & Supply Co. edger, a swing cut-off saw, 4"x9" Yates planer, and a 60' green chain —all under one roof.

The arch Teco truss building, using a bowstring truss to carry the load and peak build-up giving a triangular shape roof, has been acclaimed as a satisfactory solution to the plant housing problem. This de-

Left: Log lift, powered by 7½ h.p. General Electric motor with Pacific gearhead, transporting logs from pond to mill deck at the Mt. Jefferson Lbr. Co., Lyons, Oregon. Center: Salem Equipment & Supply Co. 6"x42" edger, with General Electric 75 h.p. motor, driving the saws and a Sterling gearhead motor providing power for variable speed feed, converts cant into 2x4s. Note how the 2x4s fit between roll fins. Right: General Electric 100 h.p. motor driving Mill Engineering & Supply Co. gang headrig via flat belt.

The 18"x26" Mill Engineering & Supply Co., gang headrig in the Mt. Jefferson Lumber Co.'s new plant at Lyons, Oregon.

sign has dual advantage of clear, post-free operating area in the plant and construction economies.

Another distinctive feature of this plant is the structural steel framework supporting the main mill floor and machinery. This steel structure was fabricated by Mill Engineering & Supply Co. Sawdust and edgings are removed from the mill by a metal refuse conveyor and planer shavings are exhausted by an American Sheet Metal Works blower system.

As indicated in the mill plan-flow chart included herewith, the headrig, edger, and cut-off saw are in a line adjacent to each other. The logs enter front end of mill at one side and reach the other side of the mill in form of 2" wane edge cants after having passed through the headrig. From that point they are transferred to storage section ahead of edger and subsequently returned to original side of mill by passing through the edger. Again the stock, now in form of edged lumber, is picked up on transfer chains for a short transverse move, this time to the rolls ahead of cut-off saw. After processing each end of the boards at the cut-off, they are mechanically kicked off the roll section, behind cut-off, onto an apron leading down to the green chain.

The planer, sitting alongside feed end of green chain and discharging surfaced lumber back onto green chain under the apron leading down from cut-off rolls, receives stock via a belt conveyor to transfer chain run-around.

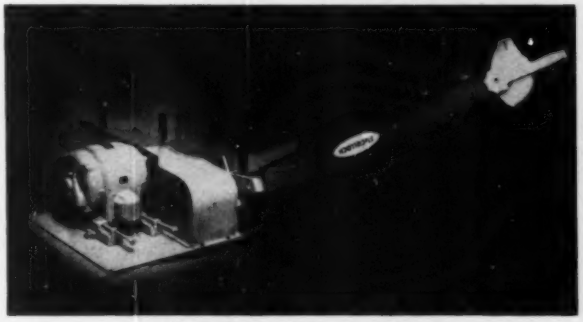
Boards are pulled from the green chain onto the belt, discharged onto transfer chains leading to feed end of planer and subsequently finished and discharged from planer onto green chain.

Currently all the Douglas fir 2x4s are surfaced 4 sides as they arrive on green chain. The 2x6s of this species accumulate during the week and are surfaced in about half day's Saturday operation.

ANNOUNCEMENT

See the NEW LOG MASTER—

Pond and DECK SAWS—Before Buying



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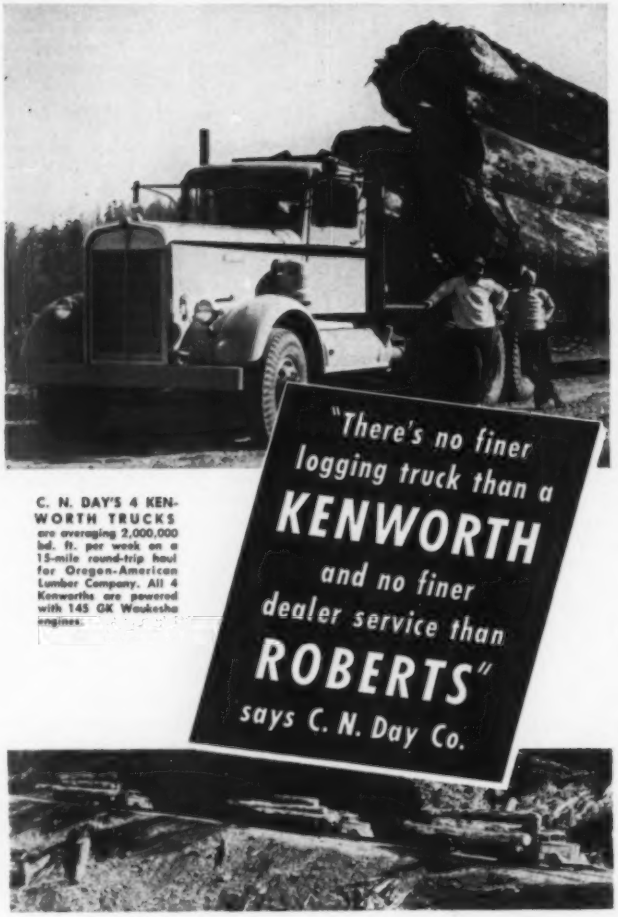

C. N. DAY'S 4 KENWORTH TRUCKS are averaging 2,000,000 bd. ft. per week on a 15-mile round-trip haul for Oregon-American Lumber Company. All 4 Kenworths are powered with 145 GK Waukesha engines.

LOG HAULERS like C. N. Day who work in the rugged Oregon woods, turn thumbs down on tenderfoot equipment. Most of them rely on Kenworth trucks . . . because the big K/Ws haul bigger payloads with far less maintenance. Also, they know they can bank on the fast, dependable parts and service facilities of Roberts Motor Company to keep their Kenworths running at top-notch performance years longer.

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MOTOR COMPANY
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Hemlock stock manufactured rough green and sticker piled is dried in the company's adjacent dry kilns prior to surfacing. About 25% of the gang mill cut is dried, according to Mr. Miller.

Logs arriving by truck at the Mt. Jefferson mills are segregated, the small logs going to upper pond for the gang mill and larger logs to lower pond for the band mill. The small logs are bucked to lengths of 24′ or shorter by an electric powered pond drag saw and subsequently removed from the pond by chain log lift at the mill. This lift, powered by 7½ h.p. General Electric motor with Pacific gearhead, transports the logs transversely to a log deck ready for delivery to the gangsaw carriage. Power unit for this deck consists of a Fairbanks-Morse motor in conjunction with a Falk reduction gear.

The headrig is flat-belt driven by a 100 h.p. General Electric motor.

Mr. Miller has incorporated into this compact plant an unusual feature concerning rolls behind the edger. In a combination of live-dead rolls three non-powered rolls are finned—four fins encircle each roll at right angle to its longitudinal axis. These are spaced to allow 4″ width lumber to pass rather snugly between adjacent fins to keep the cants properly aligned as they progress through the edger. Depth of the fins is such that the edges protrude slightly above the rough 2″ stock. Only about half of each roll is encased with fins; the rest of the roll having been left conventional to facilitate running the wider (6″) width stock.

After boards leave the edger and clear the adjacent power rolls, they remain in position on the finned rolls until lifted clear of the fins by a lift-type chain transfer. Positioning of the pick-up end of this transfer is controlled by an air cylinder.

A Sterling gearhead motor provides power for variable-speed edger feed at a range of 180 to 360 f.p.m. Edger saws are driven by a 75 h.p. General Electric motor.

This gang mill extends Mt. Jefferson Lumber Co.'s facilities for more intensive and economical utilization of that portion of the forest crop that would of economic necessity otherwise be non merchantable or marketed as a product of lesser utility.

Jim Lande is foreman of the gang mill.

Mr. Miller expressed to The LUMBERMAN his satisfaction of the performance of this mill in fulfilling this objective.

A SYSTEM OF PREVENTIVE MAINTENANCE FOR LOGGING TRUCKS

The Winton Lumber Co., Martell, Calif., one of the West's most progressive lumber producers, operating a fleet of 16 big logging trucks, has realized for a long time that "an ounce of prevention is worth a pound of cure," and especially in this period of soaring operating costs.

Under the direction of Pete Kosich, truck foreman, the company is installing a system of preventive maintenance for its logging trucks. Each driver takes one of the specially printed Driver's Daily Equipment Report. It is a four page folder, On the outside front page is space for the driver's name, date, equipment number, mileage end of trip, start of trip, total mileage for the day. Underneath is space for remarks concerning items requiring service.

Opening the folder, on the inside are found things to be checked each day. These are marked A, and they include oil level, check tires, truck and trailer; fill radiator and water tanks, check oil pressure; check battery charging rate; check temperature gauges; check truck for oil, fuel and water leaks; drain air tanks —report excessive oil or water; grease Hydrotarder—also truck and trailer bunks.

These are to be done by one of the truck mechanics, and on the Preventive Maintenance Sheet, opposite each thing to be checked the mechanic is required to put his initials.

A-1, includes things to be done every three days—a complete chassis lubrication.

B are things to be done once a week, which are A plus the following: change crankcase oil, clean in-line filter, drain fuel filter, clean crankcase breather, clean air cleaner, depending on dust conditions; check differential oil level, check transmission oil level, etc., etc.

C are things to be done once every two weeks, A and B check, plus the following: change by-pass and lube filter element; change fuel oil filter, etc., etc. Then there is D—things to be done once a month —A, B, and C are repeated, and D includes such items as: steam clean engine, adjust valves and injectors, flush engine if needed, etc., etc. E is done once every two months, and A, B, C, and D, plus the following, are done: check engine for power, drain and flush radiator—refill with proper soluble oil, grease water pump and fan, etc., etc.

F consists of things to be done every eight months, it includes A, B, C, D, E, and remove and check injectors, remove and check bearings, mains and rods; grind valves, check fuel pump, etc., etc.

After the second A to A, the engines are removed and rebuilt.

On the back of the preventive maintenance sheet is space for the mechanic to note the repairs made, his initials, and the time it took.

At the end of the day these cards are filed in dockets for each truck. Then a record for each truck is kept, including date, net time, lost time, trips, miles, fuel oil used, lube oil used, parts used, shop repairs, driver's pay, and cost of tires.

At the end of the month the company can figure out exactly what each truck has cost them, because the company also keeps a record of just what footage of logs each truck brought in each day.

From these figures it is no trick at all to find out exactly just what hauling costs are.

At the well equipped truck shop where Pete has his office, there is one mechanic on duty during the day. As the trucks start finishing up their hauls, a welder, a second mechanic, a tire man and a grease monkey come on the job to work

Left: Pete Kosich, truck foreman, Winton Lumber Co., Martell, Calif. Right: One of the twelve new Kenworth, model 524 logging trucks recently put into service by the Winton Lumber Co. They are powered with 275 HP supercharged Cummins engines, and drawing a Reliance Trailer.

through the night.

There is a well stocked parts room, a tire repair room, but all machine work is sent out.

The Winton Lumber Co. recently took delivery of 12 new Kenworth Model 524 logging trucks, with Model 456 Timken rear ends, Brown Lipe transmission, Hydrotarders, Bendix-Westinghouse air brakes, powered with 275 h.p. Cummins supercharged engines, and rolling on 1000 x 22 U.S. Royal and Goodyear tires. The company also bought at the same time eight new trailers —three Page & Page, three Reliance and two Fruehauf.

They are equipped with eight foot bunks, and carry 5,500 board feet of logs over a 42 mile haul, which consists of four miles of state highway, 19 miles of county road (which with the state highway part of the haul, accounts for the light loads carried) and 19 miles of private road.

Trucks are dispatched 10 minutes apart in the morning and most of them make three round trips per day.

Beside its new equipment the company has four 200 h.p. Cummins powered logging trucks which are the remainder of the fleet purchased from J. T. McDonald Logging Co., when that concern ceased logging and hauling for Winton.

Pete Kosich, truck foreman, started driving truck for McDonald when he had the contract at Winton, in 1944. When McDonald went to Anderson, Calif., Pete stayed behind with Winton to become truck foreman.

Keeping step with the new log hauling equipment is a new two-way General Electric radio system primarily for communication from headquarters to the woods operation of the Winton Lumber Co.

The base station is located at the company truck shops, which are between Martell and Sutter Creek. This station in turn is remotely controlled from the company headquarters at Martell. Control facilities are accomplished by using a single pair telephone line between the base station and the company office at Martell.

The General Electric equipment

(Concluded on Page 106)

WINTON LUMBER COMPANY — Preventive Maintenance Sheet

		EACH DAY
A	1	Check Oil Level
	2	Check Tires - Truck and Trailer
	3	Fill Radiator and Water Tanks
	4	Check Oil Pressure
	5	Check Battery Charging Rate
	6	Check Temperature Gauges
	7	Check Truck for Oil, Fuel, and Water Leaks
	8	Fill Fuel Tanks
	9	Drain Air Tanks - Report Excessive Oil or Water
	10	Grease Hydrotarder - also Truck and Trailer Bunks
		EVERY 3 DAYS
A-1	1	Complete Chassis Lubrication
		ONCE A WEEK
B		REPEAT "A" CHECK PLUS FOLLOWING
	1	Change Crankcase Oil
	2	Clean In-Line Filter
	3	Drain Fuel Filter
	4	Clean Crankcase Breather
	5	Clean Air Cleaner - Depending on Dust Conditions
	6	Check Differential Oil Level
	7	Check Transmission Oil Level
	8	Check Fan Belts
	9	Check Compressor Belts
	10	Check Batteries for Water
	11	Check Brakes and Brake Lining on Truck and Trailer
	12	Check Bunk Chains on Truck and Trailer
	13	Wash Truck
	14	Hose Off Trailer
		ONCE EVERY TWO WEEKS
C		REPEAT "A" - "B" CHECK PLUS FOLLOWING
	1	Change By-Pass and Lube Filter Element
	2	Change Fuel Oil Filter
	3	Check Clutch for Adjustment
	4	Check Lube Oil, Fuel Oil, Water and Air Lines for Leaks
	5	Check Soluble Oil in Radiator
	6	Lubricate Generator
	7	Check Generator Drive Chain
	8	Check Universal Joints
	9	Check Steering Gear Box
	10	Check Fire Extinguishers
	11	Check for Cracks in Frame
	12	Replace Leaking Hydrotarder Seals If Necessary

		ONCE A MONTH
D		REPEAT "A" - "B" - "C" PLUS FOLLOWING
	1	Steam Clean Engine
	2	Adjust Valves and Injectors
	3	Flush Engine If Needed
	4	Inspect Super-charger for Leaks
	5	Check Engine for Blow-by
	6	Tighten All Bolts and Nuts on Cab
	7	Check Battery Wires and Terminals
	8	Tighten Drive Pulleys
	9	Blow Dirt from Generator
	10	Inspect Brushes
	11	Check Thermostat Controls and Shutters
	12	Inspect Front Wheel Bearings
	13	Check Trailer Eye for Wear
		ONCE EVERY TWO MONTHS
E		REPEAT "A" - "B" - "C" - "D" PLUS FOLLOWING
	1	Check Engine for Power - If it has power and no smoke do not remove injectors.
	2	Drain and Flush Radiator - Refill with Proper Soluble Oil
	3	Grease Water Pump and Fan
	4	Grease Starter Drive
	5	Check Crankshaft End Clearance
	6	Check Upper Rockers for Oil Leaks
	7	Drain and Flush Differentials
	8	Drain and Flush Transmissions
	9	Check Torque Arm Bushings
	10	Tighten U Flange Nuts
		EVERY EIGHT MONTHS
F	1	Remove and Check Injectors
	2	Remove and Check Bearings, Mains and Rods
	3	Grind Valves
	4	Check Fuel Pump
	5	Re-ring Engine If Necessary
	6	Clean Oil Cooler
	7	Check Water Pump - Rebuild If Necessary
	8	Check Supercharger Bearings and Seals
	9	Check Camshaft and Bushings
	10	Check Upper and Lower Rockers
	11	Check Clutch Drive Unit Bearings
	12	Check All Electrical Equipment
	13	Open and Inspect Differentials
	14	Open and Inspect Transmissions
	15	Pack All Wheel Bearings on Trucks
	16	Pack All Wheel Bearings on Trailer
	17	Check Cup and Saucer on Trailer Turntable
	18	Check All Trunion Bushings on Trucks
	19	Check all Trunion Bushings on Trailer
	20	Rebuild Air Compressor
		AFTER 2ND A TO F
		REMOVE ENGINE AND REBUILD

Inside of Driver's Daily equipment report.

Driver's Daily Equipment Report

DRIVER'S NAME ..... DATE .....

EQUIPMENT NO. ..... MILEAGE { END ..... START ..... TOTAL .....

ITEMS REQUIRING SERVICE

REMARKS:

Front page of Driver's Daily Equipment report.

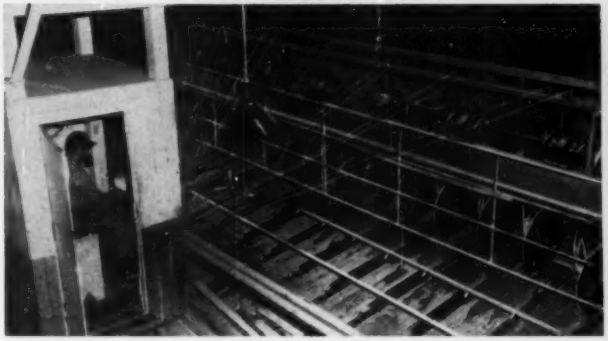
REPAIRS MADE AS FOLLOWS	Mech.	Hrs.

Back page of Driver's daily equipment report.

PRESCOTT IRON WORKS, INC.

SAWMILL MACHINERY

TRIMMERS



Typical Trimmer Installation
SAWS SPACED AS REQUIRED
6", 12", 16", 24", 36", 6'-3"

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Prescott Trimmers will give Years of Trouble-Free, High Production service and will pay for themselves within a few years' operation through savings by increased production and lower maintenance costs.

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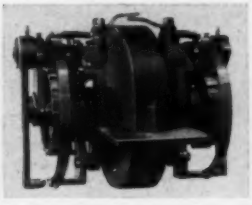

Mechanically operated saw Lifting Unit.

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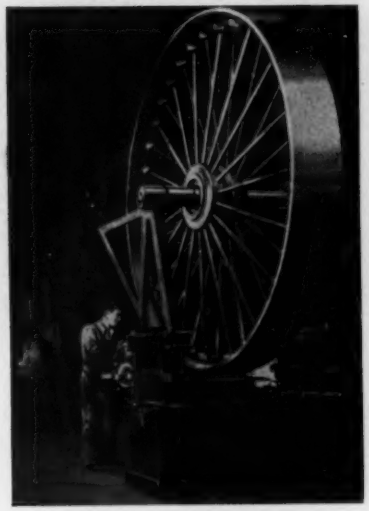
BANDMILL WHEELS



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1. Chips and hog fuel, as well as lumber, are shipped by barge and scow from the Eburne mill of Canadian Forest Products, Ltd., near Vancouver, B. C. 2. Feeding slabs to the Sumner hydraulic barker. 3. Bolter saw handles slabs too wide to pass through barker or chipper. 4. Section of Sumner chip screen with 7½ h.p. motor.

SAWMILL CHIPPING PLANT

BRITISH COLUMBIA MILL NOW PRODUCING SOME 2000 UNITS OF PULP CHIPS PER MONTH FROM SLABS AND OTHER MILL REFUSE

Symbolic of a recent trend in British Columbia towards fuller utilization of the raw material used by the lumber industry is the efficient new chip manufacturing plant recently completed at the Eburne Sawmills Division, Canadian Forest Products, Ltd., near Vancouver.

This operation is one of half a dozen or more Canadian West Coast sawmills that have installed chipping facilities. So far as Canadian Forest Products, Ltd., is concerned, this is in line with its policy of diversification and maximum wood use.

The company's plywood division (Pacific Veneer), operating a few miles east, near New Westminster, recently established a hardboard plant to convert material previously wasted into a marketable product.

At Eburne the company operates one of the largest lumber producing mills in the province, drawing its log supplies chiefly from Canadian Forest Products' extensive timber holdings in the Nimpkish Valley of northwestern Vancouver Island.

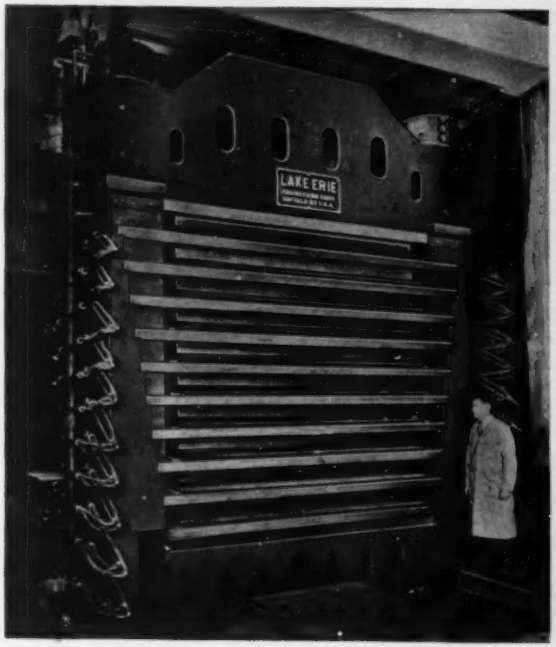
The chipping plant represents the company's latest development, and it represents the means for producing some 2,000 units of pulp chips monthly from slabs and other mill refuse that was previously burned as fuel or otherwise disposed of at much less economic return. The mill has its own hog fuel plant, too, and this absorbs much of the discard from the chipping plant and makes it available as fuel for industrial establishments in the lower mainland of British Columbia.

There are really three sawmills in the Eburne setup. The No. 1 mill handles the larger logs, being equipped with an 8′ band mill, edger and three resaws. Douglas fir and hemlock are cut there on a 50-50 basis. No. 2 mill has a 6″ band mill with cant gang gang mill, double edger and trimmer, taking logs somewhat smaller than those going to No. 1 and suitable for selective cutting. No. 3 mill, described in detail in The LUMBERMAN a few months ago, is primarily for peewee logs.

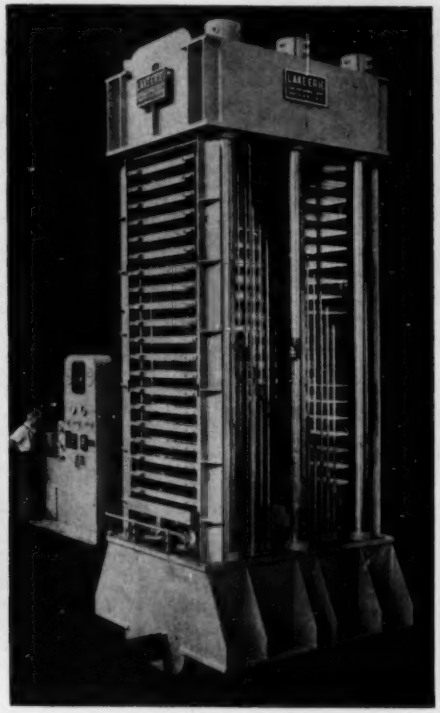
The new chipping plant draws most of its material from Nos. 1 and

One of the major developments in the forest products manufacturing industry has been the installation of chipping plants in order to obtain greater utilization of the raw materials. Many mills are finding a ready market for chips and through the establishment of chipping facilities are able to convert large quantities of so-called waste material into another valuable forest product. With the development of a new hardboard industry in all forested areas, there appears to be a bright future for chipping plants operating in connection with sawmills and other wood using plants.—Editor.

LAKE ERIE is first in the field with presses for PROFITABLE PROCESSING of WASTEWOOD



LEADING EASTERN PLANT is using this new 2,500-ton press for the "automatic" production of hardboard from sawdust and synthetic plastic resin.



LEADING WESTERN PLANT is using this 1,950-ton automatic cycle control press for semi-wet processing of wallboard from veneer scrap.

AND . . . leading plants are turning to Lake Erie for the latest in PLYWOOD PRESSES

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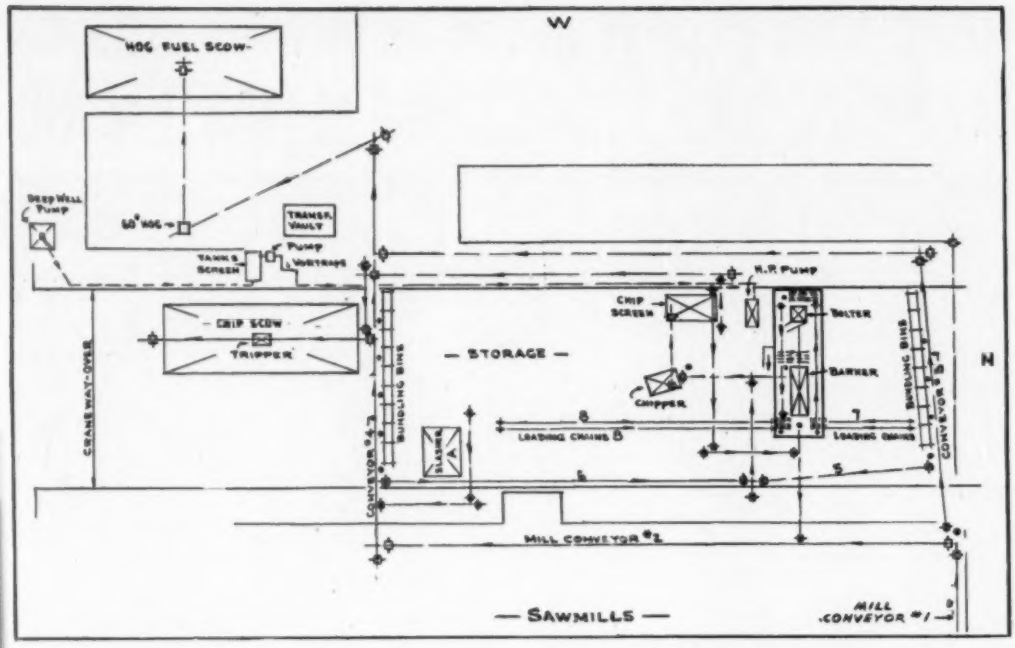

Floor plan of the modern Chipping plant of the Canadian Forest Products Eburne Division, Vancouver, B.C.

2 mills. Hemlock, balsam and spruce are the species being chiefly converted into chips now, although the installation is such that fir and cedar chips could be produced.

The chipping plant is located immediately adjacent to the sawmills, and in order to place it in this position the only space available was the original timber storage bay, with a scow berth for export loading situated at one end. Since the construction of a new loading dock equipped with a hammerhead crane, the old facilities were not being used to full advantage, so the chipping plant was installed there. Having the plant thus located, it was possible to make use of the 8-ton overhead crane (Western Bridge Steel Fabricators) in handling bundles of pulpwood.

Pulpwood slabs converge from the sawmills in Link-Belt conveyers, as shown on the accompanying diagram. These "refuse" conveyers discharge into a common conveyer leading to a 60" Sumner hog from which the resulting hog fuel is conveyed to scows.

Woodpickers are located along conveyers 3 and 4. Unbarked wood is picked out and placed in nearby bins of one-cord capacity each. Wire rope slings are set in bins prior to loading. Clean wood in these conveyers is placed in conveyers 5 and 6 which carry in common conveyers to a Sumner eight-knife 54" chipper powered by a 150 h.p. motor.

Sling loads of unbarked wood are picked out of the bins with the overhead bridge crane, involving an operator and chaser. The loads are deposited on loading chains 7 and 8. Slings are removed as the loads proceed towards the barker. One man on each side of the barker breaks up and loads for the man feeding.

The hydraulic barker is the product of research conducted by Puget Sound Pulp & Timber Co. in conjunction with the Sumner Iron Works. Five rolls in the barker carry the slabs past four high-pressure nozzles. These nozzles emit a pressure of 1350 p.s.i., which readily removes the bark from the slabs. The slabs emerge from the barker onto camel-back chains which transfer them to the conveyer to the chipper. One man is responsible for the operation of the chipper.

Material that has not been thoroughly barked is picked out manually and returned in a conveyer to the barker. Slabs which are too wide to pass through the barker or chipper are picked out and placed in a conveyer leading to the bolter. The slabs are split and sent up the rebarking conveyer to the barker, or in the case of clean wood direct to the chipper.

A chain conveyer under the chipper deposits the chips on one end of a Sumner chip screen, which requires a 7½ h.p. motor to drive it. Oversize chips from the top screen and refuse from the bottom pan are carried away by conveyers discharging into the refuse conveyer from under the bolter and barker. This conveyer, in turn, empties into mill conveyer No. 2, which finally terminates at the hog fuel scow. The bottom screen shakes ⅝" chips into a short conveyer which drops them on a long inclined 24" Link-Belt trougher conveyer with 32" four-ply Dominion rubber belt. This conveyer elevates the chips to a short conveyer which spills them on another trougher conveyer that runs longitudinally along the center axis of the chip scow. A Link-Belt tripper carriage on rails traverses this belt and distributes the chips evenly on any part of the scow below. The entire scow berth is spanned by a

(Concluded on Page 97)

SAWMILL ENGINEERING PROGRESS IN NORTHEAST

Despite the fact it embraces some of the greatest lumber and wood products markets in the world, the contributions recently in the realm of sawmill engineering in the Northeast have been somewhat less than to the eastern South coast and not since last war's end has there shaped up any development which could be called a trend.

The genius of the Northeast lies in remanufacturing tailor-made to serve its twin genius of distribution. Toward this end there were many examples of improvements, and typical of such were additions by Weyerhaeuser's Eastern Distributing Yards and Atlantic Terminals. Recently at the Newark, N. J. remanufacturing plant this company installed newest examples of machinery including Stetson-Ross 8-knife planer and matcher, and a new S. A. Woods molder.

Moreover, to exemplify the geographical spread of such new equipment which has replaced old outfits which took an immeasurable beating through 1940 to the present time, Weyerhaeuser duplicated these installations at Baltimore, Md., and Portsmouth, R. I., with exception of the molder at Portsmouth, which was rebuilt.

Makers of small sawmills of all types reported excellent sales in the New England area, however, as well as in Pennsylvania and upper New York State. And there was a definite livening of interest in small diesel power, in some instances, to power the smaller layouts. Heretofore, on smaller horsepower needs, gasoline engines have been the average standard where electric lines are not adjacent. But diesel makers have progressed notably in smaller horsepower in the stationary field and Northeast mills are not so inclined to purchase extra diesel horsepower for future auxiliaries as are mills in other regions, notably the west coast, and as a consequence smaller mills fronting the Atlantic are more open to midget diesels.

Considerable interest in diesel for power plants alone was also in evidence, and sizable boiler capacity was purchased.

Rising costs made any mill interested in the bark presses which have been developed in such numbers in the east, but as a general rule these new devices were too high in price and freight to interest any but the every largest mill. Engineers reported to The LUMBERMAN that re-design in lighter metals, if shortages do not prevent, and possibly more attention to higher percentages of dehydration, will take place in this field.

New barker developments were taking hold, however, especially in the hydraulics classification. Notably among these finding favor in New England was the Hansel ring-type barker, developed on the west coast and suitable for smaller wood than found there, now made and sold by R. P. Adams in the Northeast.

Significant of present and future sawmill equipment needs in the area was an estimate of his sales in chipper and planer knives by a well known sales representative whose territory includes the Northeast and Southeast. They had gone well into five figures and much of this could be attributed to lumbering northward inasmuch as the coastline area to the south is more notable for pulp and paper manufacturing. Even though they would account for large chipper knife sales, this observer stated the interest in wood chips as

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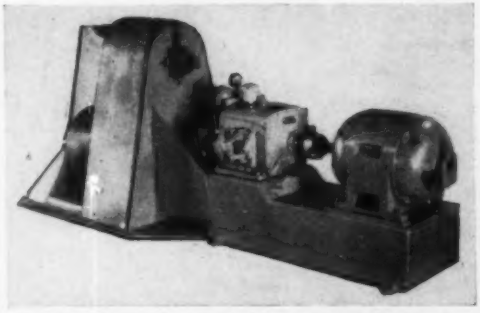

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Factory and Field Trained Engineers
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by-product to pulp mills was beyond the conjectural stage.

Because most foreign shipments of U. S. machinery leave from East Coast ports, The LUMBERMAN queried a number of export firms as to developments abroad. It was found that the plywood field had to some extent usurped sawmill interest in Western Powers buyers, but additional countries—for example, India—were strong on the small circular mill and diesel powered up to about 150 horses. Unusual interest was being indicated, too, in lumber handling devices of the propelled lift-type.

SAWMILL ENGINEERING TRENDS IN BRITISH COLUMBIA

Recent trends in sawmill design and engineering in British Columbia have followed many different lines. However, the major developments applying in a general way to the lumber manufacturing industry may be roughly summarized in three catagories:

1. Use of machines and methods aiming at the more efficient utilization of small logs.

2. Integration of production in the larger mills with a view to increasing the variety and volume of end products.

3. Expansion of facilities to produce pulp chips, thus converting into commercial use and profit material that was previously wasted or disposed of at a considerably lower price.

Generally speaking, a few brand new sawmills have been built in British Columbia during the past year, with the exception of portable and semi-portable units. So far as the larger mills are concerned, most of the new work on them has consisted of remodelling, renovation and the installation of new, more effective machines.

Most of the sawmill authorities consulted by The LUMBERMAN expressed the opinion that, with conditions as they are, few if any really large new sawmills are likely to be built in the presently highly productive lower mainland or Vancouver Island areas of the province —that is to say, conventional sawmills whose main interest is the production of lumber rather than affiliated products.

Integrated Operations

On the other hand, there is general agreement that production of lumber will remain at a high level, but that it will be in association with a more diversified output. This trend is already exemplified by the policy of some of British Columbia's largest and most successful lumber companies. Canadian Western Lumber Co. at Fraser Mills, and the Canadian White Pine Division of H. R. MacMillan Export Co., both on the Fraser River, have long produced plywood as well as lumber. Universal Box & Lumber Co., of the Alaska Pine organization, also on the Fraser, produces pulp chips as well as lumber, as does the nearby Eburne Sawmill Division, Canadian Forest Products, Ltd., whose Pacific Veneer Division at New Westminster manufactures hardboard and also plywood. Many similar instances could be quoted, and there is little doubt that this tendency will be extended.

Most of these developments, however, must for economic reasons be confined to the larger, liberally financed companies. Not only does the installation of the required facilities represent a substantial capital investment, but the operation pre-

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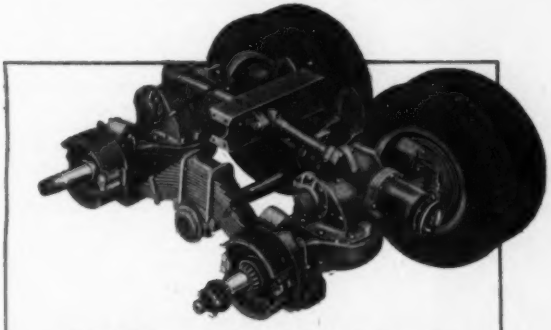

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supposes ownership or at least direct access to large timber limits which will remain an adequate source of supplies for a good many years. Only the larger companies, of course, have this assurance, and the expansion of the smaller units in the industry is limited at least in the regions now principally productive by the fact that many of the larger forest areas not actually being used now are to be reserved under the government's long-term forest management program.

Custom Debarking, Chipping and Utilization

However, one specialist in wood use integration when interviewed by The LUMBERMAN said that he would not be surprised if sometime in the near future localities which at present have several conventional sawmills would have a sort of custom debarking, chipping and utilization plant for the joint use of the adjacent sawmills.

"This is anything but a Utopian dream," said this expert. "It is plain common sense and quite logical, and such a development will come about through the natural sequence of economic conditions. One relatively small sawmill company, for instance, with limited supply of logs and capital, could not afford to enter the diversified production field to the extent of putting in a barking unit and other facilities. But a group of such mills could embark on such a project quite feasibly. I do not say that such an enterprise would be profitable right now, although it might be. I do say that such a thing will eventually be justified and that it will come."

Much study has been given in recent years to the more satisfactory use of small logs in British Columbia, resulting in part from the increasing percentage of such logs in the normal supply and also from the growing market for the products of such raw material. The pulp mills have, of course, provided an outlet for some of these small logs, but sawmills have been able to use them profitably, too. One method increasingly popular in B. C. is to use gang saws for these small logs. While it may not always be possible to obtain the same grade of lumber as with pony mills and conventional headsaws, the gang mill is often more accurate in its cutting and economical in operation.

"The gang saw is not designed to handle a wide variety of logs in sequence; it cannot be quickly adjusted to varying sizes," remarked one sawmill operator with wide experience in all branches of sawmill production. "But the problem can be successfully met if the logs are more carefully sorted on the booming grounds so that the gang is fed a more or less uniform type of log over a set period."

Log or Slab Barkers

While several mills operating primarily in the lumber or plywood business have installed slab barkers, the only companies in British Columbia with whole log barkers in use are those with their own pulp mills, such as the H. R. MacMillan Export Co., which has been operating a hydraulic barker designed by Howard Simons at its Canadian White Pine Division, its Victoria Division at Chemainus and at its new pulp mill at Harmac, near Vancouver, where the company operates one of the most modern and efficient wood rooms in the industry. Bloedel, Stewart & Welch, Ltd., has an efficient ring-type barker, also hydraulic, designed by Sydney Hansel, which was described in detail in a recent issue of The LUMBERMAN. While this barker actually operates in the Bloedel mill at Port Alberni, it serves the adjacent unbleached kraft pulp mill owned by the same company, which incidentally, is in-

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stalling a new Swedish chipper for small wood as well as Swede gang mills.

New Type Drives

Another sawmill man, discussing recent trends, said that there was a notable tendency towards the adoption of oil gears and fluid drives on various sawmill feed mechanisms, replacing steam, and giving greater variation in speed controls. This authority said that price was the only restraining factor in this connection, but that it was gradually being overcome. At least one small B. C. mill has recently installed electric carriage feed, and there is a trend towards more and more electric or air-operated carriages, run by one man. Port Mann Lumber Co., near New Westminster, has a "no-man" electric carriage operating smoothly.

Fast speed planers, operating at rates of 800 to 900 feet per minute, may not be new in United States lumber producing regions, but they are in the innovation category in B. C. and becoming more generally used. Vertical edgers have also found a place in some of the sawmills.

One of the factors encouraging production of pulp chips at B. C. sawmills has been the decline in the market for hog fuel, generally regarded as a bulky, labor-costly material compared with oil, and requiring higher temperatures for combustion. Some material previously going into the hog bins now is used for hardboard production, and the possibilities of the latter market are indicated by the fact that in Sweden the per capita use of hardboard is seven times what it is in this country, a condition due in part to the wider availability here of other materials, such as plywood, siding and other substances closer to their natural element.

Production of chips at some mills is limited, of course, by the species of wood available. Some scrap wood in which the fiber is destroyed is not suitable for chips and unless converted into hardboard or some similar material usually finds its way to the refuse burner.

Large Package Handling

Most sawmills have been developing a technique for the handling of increasingly large "packages" of lumber for transportation, often involving the use of steel strap to insure security and rigidity of the bundle. A Vancouver company has found a way of successfully drying cedar from the west coast of Vancouver Island—something that was seldom possible before owing to the extremely high moisture content. Cedar siding is bundled in such a way as to permit free circulation of air between layers of siding, and this is stacked in bundles by lift truck and left in the open for periods of a few weeks to two or three months, after which it is warp-free and safe from "explosion."

NEW DEVELOPMENTS IN THE SAWMILL FIELD

By J. S. ABEL, Chief Engineer
WEYERHAEUSER TIMBER COMPANY, TACOMA, WASHINGTON

In the laying out of new plants and remodeling of older ones, all design is done with a view toward obtaining the most from the log. While this goal has not as yet been fully realized, much progress has been made and it is the hope that eventually all of the usable timber brought in from the woods will be converted to salable products.

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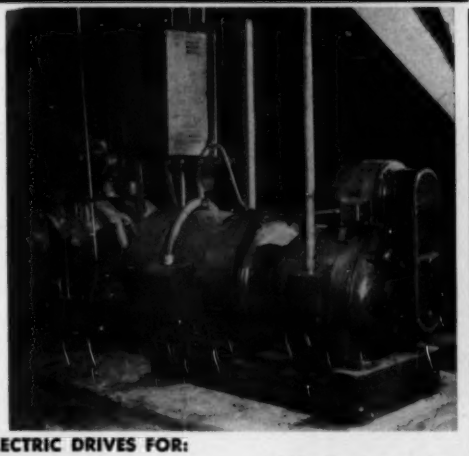

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A sustained-yield policy demands plants built for permanency and our designs are being governed accordingly. The type of equipment and structures we are now using is a result of this policy.

In order to tie in the various integrated operations involved, it is evident that a great deal of thought must be given to the over-all plant design. Much study is given to the species, age and condition of the timber to be cut. Flow charts are made of the sawmill operations and an attempt is made to break down the logs into the various quantities, grades and dimensions to be cut. This study is carried throughout the entire operation, with special attention being given to the duty cycle of each machine and unit package handling equipment involved. These studies have resulted in a number of innovations, rearrangements and improvements to equipment.

Equipment is generally furnished to our specifications by various manufacturers. However, the principal machines are of standard design with some added features. We feel that industry in general is making progress in new mechanical and engineering developments in the sawmill field; not, however, so much in the breakdown of the logs into rough lumber as in the accuracy and finish of the marketable product. Many mill operators and equipment manufacturers have developed ingenious devices which have been successfully used in many phases of sawmill operation.

Among recent developments and new products, we might mention the following:

Pres-to-log manufacture
Silvacel and Silvacon products from mill refuse
Bark products from waste bark.

We include the following among items of new equipment:

Electric carriage drives
Sawmill barkers and chippers permitting the maximum waste to be sold as chips by the mills
Variable-speed drives applied to log hauls, planers, in-line trimmers and other equipment
Automatic grade marking
High pressure steam generation
High voltage electrical distribution
Elimination of Dutch ovens and substitutions of spreader stokers for hogged fuel firing
Radio frequency gluing of plywood and lumber
Radio frequency setting of finished plywood panel patching
Automatic machine for cutting the above
Pressure barkers for plywood plants
Modern framed structures for sawmill buildings
Fluid drives and fluid couplings.

The foregoing is only a partial list of the developments made in the sawmill industry over the last few years.

SHORT LOG SAWMILL TREND

By FRED C. SIMMONS, Specialist
LOGGING AND PRIMARY PROCESSING, UNITED STATES FOREST SERVICE

The most noteworthy development in the sawmill industry in the Northeast during the past year is probably the continued interest in bolters and short log sawmills, primarily to convert small size but high quality second growth hardwoods into such products as clear-face dimension for the furniture industry. The most popular setup to date involves use of the New England "snapdragon" as a headsaw for ma-

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Strength to stand up under heavy loading ...resistance to wear and shock...extra toughness to take continuous punishment year after year—these are the built-in qualities of *ESCO* log haul and conveyor chains that keep them operating for years without grief or expense.

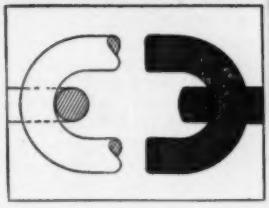
ESCO Manganese Steel
RESISTS WEAR AND SHOCK

Due to work-hardening properties peculiar to manganese steel, *ESCO* chains become increasingly hard with use, while high tensile strength and toughness are retained. Chains become highly polished in use, which greatly reduces friction.

It is common for *ESCO* log haul and conveyor chains to operate for years without a single breakdown, creating continuous service records that are rare with other equipment. They are now being used in well over 100 of the nation's most modern sawmills and pulp mills.

To learn all the facts about *ESCO* chains, consult the nearest *ESCO* representative; or fill in and mail the coupon for an illustrated catalog containing data on dimensions, weight, loadings, etc.

ESCO log haul chain and chairs working on log slip of Fischer Lumber Company, Marcola, Oregon.



Bearing area of ESCO log haul and conveyor chain is much greater at points of link-to-link contact than other chains. This decreases wear, maintains pitch, adds years of service to chains.

ESCO **LOGGING AND SAWMILL EQUIPMENT**

ELECTRIC STEEL FOUNDRY
2161 N. W. 25th Avenue, Portland 10, Oregon
SALES OFFICES AND WAREHOUSES:
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Please send me a copy of catalog 148, "ESCO Solid Cast Link Conveyor Chain".
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terial up to about 13 inches in diameter; and a short log sawmill, usually equipped with end dogs, for larger diameter material. One outfit in upper New York State, which has been given some publicity, is using three snapdragons and one short log mill. Raw material is brought in in uniform six-foot lengths. Each headsaw has behind it a straight-line rip saw and two crosscuts. The product is sorted by length, and is bundled, with ⅜-inch stickers inserted between each course, into about 24" by 24" bundles. The ends of the cut stock are end coated, and the day's production is trucked across the state to the furniture industry each night. At the furniture plant the bundles are stacked on kiln trucks, and first air and then kiln dried. They are not broken up until they get to the planer, following the drying.

Several sawmills are also making this type of dimension, running common grades of hardwood lumber through rip and crosscut saws, and sorting and bundling the green product with stickers inserted. Other saw installations are being made in Pennsylvania and West Virginia, and one large pulp mill in northern New Hampshire is seriously considering installing a dimension plant, and possibly dry kilns, where the better grade hardwood it receives from both company and other operations will be converted into furniture stock, with whatever residue remaining going into the pulpwood chippers.

The reason for this development is clear. The supply of high-grade old-growth hardwood, particularly birch, maple and cherry, is becoming very scarce. At the same time there is a lot of high-grade material developing in second-growth stands, which cannot be converted economically in standard types of sawmills. If logging of this type of material is confined to thinnings and improvement cuttings, leaving a nucleus of better-quality trees to develop to maturity, it will have an excellent effect on Northeastern timber stands, as well as producing material currently critically needed by the furniture industry. Fortunately much of it is being cut in these types of cuttings. National Forests in New Hampshire and Pennsylvania have recently made sales of 25 million board feet each, containing much of this type of material, and the National Forest in West Virginia is preparing to offer a boltwood sale of 50 million board feet. Much of the rest of the material is being cut from stands marked by county foresters in the several states, and by foresters in the employ of the pulp and lumber companies.

There is also a considerable interest in gang-saw installations. A Swedish type sash gang-saw has been installed by a pine operator on the Del-Mar-Va peninsula alongside a standard band mill. The smaller and poorer logs are going through the gang to be cut into boards and dimension, and the larger logs are cut more nearly to grade on the band. A number of other lumbermen are considering similar installations, some to cut the plantation-grown softwoods, largely red pine, now getting to be of commercial size over considerable areas, particularly in New York and southern New England.

Work Starts on New Plywood Plant

Astoria Plywood Corporation has started work on its plywood plant to be erected at Astoria, Ore. President Norman Jacobson has announced that steps have been taken to get construction started on the power plant, and that the site will be cleared as soon as possible. Plans for the mill buildings, he says, are being prepared.

Whatever your Power Problem

GASOLINE OR DIESEL

Evans Engine has the answer

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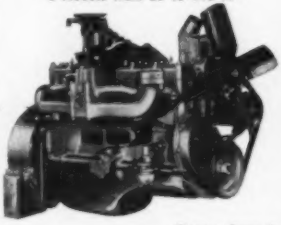
8 Models from 25 to 113 HP



Shown above is Chrysler Model IND-7, 6 cylinder, 75 HP

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Diesel Engines 8 Models from 55 to 800 HP

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For best results let us study your special power needs on the job. Backed by years of power plant engineering we can recommend the correct solution for you. No obligation.

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SAWMILL PROBLEMS IN THE REDWOOD AREA

By J. J. TALLMAN, Plant Superintendent
UNION LUMBER CO., FORT BRAGG, CALIF.

We find our methods have changed from the time the logs enter the pond due to changes in logging and transportation methods.

First, due to increased labor costs it is almost prohibitive to do any peeling of Redwood logs in the woods. As a result, we are faced with increased costs in keeping landings in the woods, at the mill and pond clear of bark. It is a continuous job cleaning up around these landings to remove bark and either burn it or dispose of it. We also find that the maintenance of our pond is much greater and makes it necessary to rake and remove many tons of bark from the pond every year. Unfortunately, the Redwood bark, after it has floated around in the pond for a day or two, soaks up sufficient water so that it sinks to the bottom. We find that the bark problem is more acute during the summer months when the Redwood bark peels easily, and is scattered along the truck roads from the woods to the mill pond and through the mill where it clogs up the machinery.

On the carriage the bark falls down between the knee and the flat surface of the square log, and unlike fir or pine bark which can be blown off with a jet of air, the Redwood bark is heavy, stringy and of quite long lengths which has to be removed by hand. This slows up production.

In the edgers the bark gets around in the guide forks and pins guiding the saws causing the saws to run hot which necessitates stopping and cleaning out the bark. The bark also jams in between the shift levers and has to be removed in order to shift the saws for narrow widths of lumber.

As a result of this slowing up the California Redwood Association has a Research Committee making surveys on various methods of removing bark. Some progress has been made along this line.

Another problem we have to deal with is the long lengths of logs that now come in from the woods. With the advent of tractor logging and truck hauling it is much more economical to handle logs in long lengths and consequently, this type of procedure has come to stay, which will require more and better facilities for bucking the logs on the pond or in the log slip at the mill.

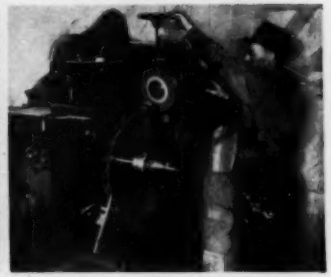
To meet this situation we have installed a heavy duty chain saw manufactured by the Union Iron Works of Spokane. After installing this saw we had considerable trouble due to the log pinching the saw. Here in the Redwood area we cut quite a few logs that are heavy on one end and the tendency of the log is to rise on the light end when it is being sawn in two and consequently, pinching the saw. In order to overcome this we have installed a four point hoist to lift the logs sufficiently to keep them from pinching the saw. The hoist is very important as it has speeded up our bucking and has cut saw maintenance costs considerably. The hoist consists of a Tee section of iron in guides on either side of the saw and is raised by means of four cables over two drums operated by a two h.p. motor with a post brake and worm gear.

MEET HIGH PRODUCTION COSTS

between the eyes

Here's How:

Matt Smith, head filer for Woodard Lumber Co., Cottage Grove, Oregon, using a new #12 Armstrong roller bearing swage.



Matt likes this new model Armstrong machine because little or no emery dust gets into the working parts. "Nothing to go wrong with it," he says.

Armstrong Filing Room Equipment is the answer to the problem of keeping production costs in line in view of advancing labor costs. Armstrong Equipment puts into the hands of your filers the most advanced means of keeping saws in top shape. Armstrong is precision saw filing equipment . . . there is none finer available anywhere. It's the type of equipment that means more profit dollars from your lumber. Investigate today.

Armstrong SAW SHARPENERS

ARMSTRONG MANUFACTURING CO.
2135 N.W. 21st Ave. Portland 8, Oregon
Founded in 1902 by E. P. Armstrong

The pond men have found this hoist very useful in holding up sinker logs while they are being attached to floaters.

With the coming of Tree Farms we have reached a new era in lumber manufacturing that is making us all conservation minded and calls for more precision machinery and better maintenance in order to prevent waste. It will also call for complete cooperation between the production department operators and service maintenance men in keeping the head saw, carriage, edger, and trimmer in the best possible repair and adjustment in order to meet the challenge of conservation to provide timber for future generations.

MANUFACTURING PRACTICES AT KINZUA

By R. M. WRIGHT, Sawmill Superintendent
KINZUA PINE MILLS, KINZUA, ORE.

In our sawmill we have two bands and one resaw. One right-hand 9′ Diamond single cut with 14″ shotgun feed using Hill nigger, electric setworks and Filer & Stowell air dogs and tapers. One left-hand 8′ McDonough single cut with 10″ gun, Hill nigger, steam setworks and Filer & Stowell air dogs and tapers. One 6′ Allis-Chalmers horizontal resaw with Merry-go-round and is fed from both band mills. All our mills have pressure guides. The bands use sliver teeth and no offsets.

Our cut is around 150M per eight-hour day. Cutting around 80% Ponderosa pine and 20% fir and larch. As to grades, we load our logs on the rigs to give us all the selects that it is possible to get. Since it is our practice to go into the tops, taking them down to as small as 6″, it has changed the percentage of all grades, noticed most on the smaller percentage of selects. This also gives us less shop and more commons. With two bands, we kick the larger shop type logs to the right side, which has a heavier carriage and the smaller logs to the left side, which has a much lighter carriage.

We return our slabs sometimes twice through the resaw, sawing lumber down to 4″ wide and 4′ long—these are usually selects and are used in our factory in glue stock.

In edging we skim our shops and leave considerable wane on the edges. In trimming we square the ends on commons and selects but do not trim our shop; only stumped ends. The extra 4″ or more in length sometimes gives another or longer cut in our factory. All of our shop is worked up in the factory.

It is our opinion that this size mill is practical and economical to operate. As to faster or slower machinery, we are always interested in any machine that can produce lumber faster if it will make well manufactured lumber.

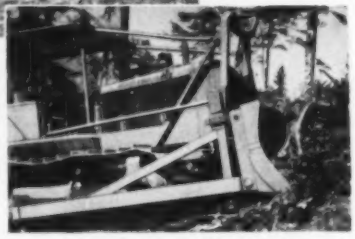
Modification in power supply or changing to an entirely different type of power for us would be in the future. We are very much interested in the possibility of a press board plant and might find it more economical to use all electrical power wherever possible instead of steam should we build such a plant.

In the utilization of by-products we are gluing panels out of pieces 8″ long and 4″ wide. We also make a flooring block out of fir, using pieces 2″ wide and 12″ long. Our trims in the planer are all used up in this manner.

The 30M foot sawmill of *Coast Range Timber Products* Co., Dallas, Ore., was destroyed by fire Dec. 8. Efforts of firemen saved the company's planing mill and stacked lumber and prevented flames from spreading to the nearby LaCreole Lumber Co. operations.

Stacel & Northrup "Prove" Performance
50% to 100% MORE LOGS
WITH ALLIS-CHALMERS HD-19

"We yard as many logs with two Allis-Chalmers HD-19s as we did with three or four other machines!"



"They'll go where we haven't been able to put other equipment," reports L. Stacel, shown at controls. "The torque converter saves shifting, takes us through mud that stopped us before. We make brake and clutch adjustments during lunch."

After "proving" an Allis-Chalmers HD-19 for a year, Stacel and Northrup went back to the Wood Tractor Company for their second one. Teamed, the two HD-19s are hanging up records like these: 30 truck loads of logs a day, some from as far as 1500 ft.; up to one and a half truck loads a trip on level ground; 4000 to 5000 feet of logs up 15% to 20% grades. "We certainly wouldn't have anything else after using Allis-Chalmers HD-19s," said Stacel.

Pictures taken 15 miles east of Cougar, Washington, where Stacel & Northrup are contracting for the Lewis River Logging Company.

1033 S.E. MAIN STREET ★ PORTLAND 14, OREGON
VErmont 3135 · VErmont 3243

Sawmill Chipping Plant

(Concluded from Page 86)

trussed roof and partial walls to eliminate wind interference. It is built high enough to permit the bridge scale to travel under it.

Slashers (A on the diagram) were installed to cut long length slab and edging loads into 4′ lengths, which originate at the No. 3 mill, which is divorced from the other two mills, as well as some outside material that is purchased from other mills in the vicinity. Conveyers take the 4′ slabs back to the pulpwood bins as previously described.

The hydraulic barking system may be described briefly as follows: Piles and sheet-piling were driven well out in the river to form a well. Openings on two sides were covered with stainless steel screens. A platform was built and deep well pump installed. The pump is a Bingham, with a 34′ head and 1100 gallons per minute delivery. The motor is a General Electric unit.

Water is delivered by this pump to a screened tank. It is then pumped from this tank by a booster pump, a Bingham 750 g.p.m., 160′ head, 75 p.s.i., to three Vortraps units which do the final filtering. With approximately 20 percent loss in pressure the water reaches the high pressure pump, which delivers 600 g.p.m. at a pressure of 1350 p.s.i. to the hydraulic barker nozzles. This pump is a Bingham 4x4x10 M.S.B. eight-stage 600 g.p.m. and is powered by a 600 h.p. Electric Machinery Co. motor.

Necessary gauges and safety controls were installed to safeguard the pumping units.

One 1000 K.V.A. 3-phase transformer supplies power for this operation. Heavy lead-covered cable is run from the transformer vault to the distribution centers mounted on a mezzanine floor above the high pressure pump. The 600 h.p. pump motor is connected across the line. Interlocking of controls speeds up operation. Operation is now on a demand factor of 70 percent.

L. L. G. Bentley is vice-president of Canadian Forest Products, Ltd., actively directing the Eburne operation, with James Kay sawmill superintendent.

Raymond Lewis, President and *F. C. Schaefer*, secretary have purchased the interests of other stockholders in the *Raymond Lumber Co.*, Raymond, Wash., and are now operating the business as a partnership.

"During the seven month period before using LUBRIPLATE No. 130AA in the bearings of our Kraft Mill Lime Kiln, we used a conventional oil of the density recommended. The cost of the lubricant for the period was $2,134.00. In the seven months that followed, we only used 128 lbs. of LUBRIPLATE No. 130AA for initial filling and replacement at the cost of $35.84. LUBRIPLATE No. 130AA only requires weekly applications whereas the former lubricant required daily application."

• • •

The Brown Company is a progressive organization that is continuously seeking ways to improve their products, their methods and to cut costs. Naturally, when they found LUBRIPLATE No. 130AA, a grease type lubricant with great adhesive qualities, high film strength, and with high heat resistance, they saw the possibility of using it to their advantage in the bearings of their kilns and other equipment.

LUBRIPLATE Lubricants are available from the lightest fluids to the heaviest density greases. They reduce friction, wear and power consumption, they prevent rust and corrosion, they last much longer than ordinary lubricants. There is a LUBRIPLATE Lubricant that is best for every lubrication requirement. Let us send you information about the use of LUBRIPLATE Lubricants in your industry. *Write today.*

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DEALERS EVERYWHERE—CONSULT YOUR CLASSIFIED TELEPHONE BOOK

LUBRIPLATE *THE MODERN LUBRICANT*

MODERNIZATION IN SOUTH STIMULATED BY HIGH PRODUCTION COSTS

Southern lumbermen during the past two years or three have likely devoted more attention to sawmill engineering and modernization of mills than have similar groups anywhere else in America. Not only have southern manufacturers been confronted with what might be termed normal increases in production costs, common to the industry throughout the world, but the enactment of the new wage act added very materially to the labor cost in southern mills.

Some idea of what this increase in costs has been is found in the following figures prepared by E. R. Schindler, manager Mechanical Efficiency Department, Southern Pine Association:

Item (1st 6 Mos.)	Cost per M Board Feet 1950	1936	Increase in Cost Amt.	Pct.
Logging and Transportation	$20.088	$ 5.731	$14.357	251
Sawmill	11.080	2.660	8.420	317
Yards & Sheds	3.670	1.056	2.614	248
Dry Kiln	2.545	.683	1.862	273
Planer	4.896	1.425	3.471	244
Shipping	2.361	.811	1.550	191
Selling	2.974	1.346	1.628	121
General & Administrative	8.662	2.994	5.668	189
Depreciation	2.071	1.356	.715	53
Stumpage & Purchased Logs	11.465	4.750	6.715	141
Total Cost	$69.812	$22.812	$47.000	206

Mr. Schindler has suggested the following methods as a means of obtaining greater efficiency in southern operations:

1. More economical plant layouts
2. Extensive use of mechanical handling equipment.
3. Employment of better sawing methods.
4. More efficient power generation and transmission.
5. Improved lumber drying techniques.
6. Elimination of unsafe working conditions.

The Southern Pine Association's mechanical efficiency meeting and machinery show in New Orleans last April was an outstanding demonstration of the great interest in the subject on the part of southern forest products manufacturers.

Dwyer Heads Oregon Natural Resources Road Committee

An Oregon Natural Resources Roads Committee of Pacific Logging Congress has been established as a fact finding and technical survey group. Robert F. Dwyer, Dwyer Lumber Co., Portland, is chairman of the committee. Other members include Lloyd Christensen, Crown Zellerbach Corp., Seaside; Robert Wilson, Warm Springs Lumber Co., Warm Springs; Harry C. Patton; Hammond Lumber Co., Portland; Martin Coopey, highway engineer, Oregon State College, Corvallis; Milo McIver, of the Oregon State Highway Commission, Salem.

This committee is the fourth such group to be established on the Pacific Coast, Washington, Idaho and Montana having already organized.

The original resources roads committee was set up three years ago and headed by Emmit Aston, Biles-Coleman Lumber Co., Omak, Wash.

Chairman Dwyer has asked the Oregon State College School of Forestry to make a road survey in Oregon, as was done in Washington.

Such a survey is now under way in California.

Starts Hardboard Plant Construction

Coos Bay Lumber Co., has started construction of the foundations for the hardboard plant which it plans to erect adjacent to its sawmills at Coos Bay, Oregon.

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Trustees and officers of the Western Forestry and Conservation Association; seated left to right, Stuart Moir, forest council; Clyde Martin, secretary; Earl Tanner, retiring president; Charles Cowan, treasurer; E. P. Stamm. Standing, E. B. Birmingham, Emmit Aston, Kenneth Walker, Roy Morse, Fritz Jewitt, John Aram, S. G. Smith, William Schofield

MANAGED FORESTS

REPRESENTATIVES OF PRIVATE AND GOVERNMENT AGENCIES TAKE A CLOSE LOOK AT THE AMAZING PROGRESS OF AMERICAN TREE GROWING ACTIVITIES

The tremendous progress in the realm of tree growing in America was highlighted at the three-day forty-first conference of the Western Forestry and Conservation Association in San Francisco, December 6, 7, 8. Whether it be in the Lake States, the Northeast, the South, the West or in Canada, the story is the same, everywhere a steadily mounting acreage of enthusiastically managed tree farms, which spell an abundance of wood for the future use of the forest industries.

Indicating the importance and interest in the growing of trees was the presence at the conference of an unusually large number of presidents and executives of prominent lumber companies. Foresters and career men have always been interested in these meetings but never before have so many representatives, owners and managers attended.

President Earl Tanner, in opening the conference, called attention to the fight which forest land owners, public and private, must wage against forest insects, disease and fire.

President Tanner presented the City of San Francisco with a bundle of 800 fir seedlings, which will be set out in the city's parks.

Lyle Watts, chief forester of the U. S., said access roads are needed to make available Forest Service timber. He said congress should make funds available for such roads.

R. A. Colgan, manager, National Lumber Manufacturers Association, said the industry will supply all the lumber needed by the government in a war emergency.

WANT ROADS TO TAP GOVERNMENT TIMBER

Speakers said private industry, which for the most part has its timber opened up with roads, should not be called upon to bear the brunt of timber demand as it did in the last war, but that the Forest Service should build roads into its vast stands of timber.

WALTER NEILS

Manager J. Neils Lumber Co., Libby, Montana, new president Western Forestry and Conservation Association.

A large number of progress reports were made by chairmen of standing committees. One by W. H. Larson told of good results with spray poisoning of roadside alder. He indicated a cost of about $6 per mile for the chemical. He said the cost of this type of work compared favorably with hand bushing.

John B. Woods, Jr., said that some 14,000,000,000 feet of timber will be salvaged from the Tillamook burn, which is more than the estimates of the stand in the area burned.

He told of the ambitious state regeneration program now getting under way in the Tillamook area. The project is supposed to be completed within fifteen years.

R. D. Roseberry, forester Diamond Match Co., Stirling City, Calif., said great progress had been made in farm woodlot forestry.

John E. Liersch, Powell River Co., Ltd., Vancouver, B. C., gave a summary of his recent trip to Norway and Sweden. He said the Scandinavians roughly figure the increment as three percent of the stand. They get good returns from thinning. They favor fast growing trees and lean toward planting so that

Left to right: W. D. Price, Shasta Forests Co., A. O. Lefers, Hammond Lumber Co., Samoa, Calif., Carl Walker, Feather River Pine Mills, Inc., Robert Gallagher, New Mexico Timber Co., Waldron Hyatt, Hammond Lumber Co., Kenneth Smith, The Pacific Lumber Co., E. T. F. Wohlenberg, The Masonite Corp., Ukiah, Calif.

Top left to right: W. R. Schofield, California Forest Protective Assn., D. L. Phipps, Acting Oregon State Forester, George L. Drake, Simpson Logging Co., W. D. Welsh, Crown Zellerbach Corp., Gordon Manary, Pacific Lumber Co., E. W. Tinker, Executive secretary, American Paper & Pulp Assn., A. H. Merrill, Hammond Lumber Co., Samoa, Calif. Bottom, left to right: Truman Collins, Collins Pine Co., E. P. Stamm, Crown-Zellerbach Corp., W. D. Hagenstein, Forester, Pacific-Northwest Forest Industries, W. G. Hughes, Forester, British Columbia Forest Service, St. Paul & Tacoma Lumber Co. had eight representatives including, President E. G. Griggs II, and Vice President, Corydon Wagner. Shown here left to right are: John Bosshart, Edwin S. Hall, Norman Jacobson, chief forester, John T. Marsh, Robert G. Helgeson, Roy Stier.

they can improve the tree strains. They remove trees which appear to be sub-normal. They have no fire problem and they have splendid utilization. The profit angle is recognized in the forest laws.

Prof. Emanuel Fritz, College of Forestry, University of California, in a paper discussing the growing of a redwood crop, summarized the cutting of old growth by recommending that operators leave as many of the immature trees of all species as possible and protect them against logging and slash burning damage. He stressed the steadily increasing importance of the second growth stands and said that intelligent thinning should be considered. He said that when no markets exist for thinnings second growth redwood stands should be left alone. As to the so-called brush areas he said the important thing is to keep such lands from burning. He said that the actual job of managing tree farms will quickly reveal possibilities for improvements in management.

Walter Horning, U. S. Department of the Interior, said that the department cannot take a complacent attitude toward the forests in Alaska which have been badly ravaged by fire. He said the Indian forests are definitely set up to produce a maximum amount of forest products on a perpetual sustained yield basis. He said the law prevents cutting of green timber in the National Parks.

Ed Rettig, Potlatch Forests, Inc., discussed the problem of growing a new crop of Idaho White Pine. He said many serious problems have to be solved. He said nature is doing a more deadly job than humans in removing the white pine forests. He referred to disease, insects and fire. He said quick answers are needed to these problems. He said fires had been controlled but not pests and disease.

Chas. Cowan was the chairman of the Thursday Protection sessions. Many reports were submitted from representatives of private, state and federal agencies. Cowan reported that there were 7,724 fires, covering 1,149,576 acres, in 1950.

BETTER WEATHER FORECASTS URGED

Foresters said more long range fire forecasts should be provided. State Forester B. L. Orell of Washington said the weather bureau should supply information on wind velocities. Present information, he said, is inadequate. He said the period velocities have been only about 50 percent accurate.

Floyd Godden, U. S. Forest Service, Ogden, Utah, said attention should be paid to the matter of rain making.

A. B. Curtis, chief fire warden, Potlatch Timber Protective Association, emphasized the value of a forest protective plan. He said if such a plan is made and understood by the organization, men will know what to do when the emergency arrives. DeWitt Nelson, California state forester, said such a plan must

Special Grinding Methods give you

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WIDE BAND SAWS

Put a mike on any Simonds Wide Band at any point . . . then at the point farthest away. There's no variation in the thickness of the band . . . because Simonds special heavy grinding equipment does that job as nothing else can. And this means a truer saw *that runs over the guides more smoothly and with less vibration . . .* a saw that not only holds its uniform tension but is much easier to tension when needed.

In short, Simonds Wide Bands . . . 100% quality-controlled from Simonds own steel mills through Simonds famed windowless factory . . . are the standard which all other wide bands try to meet. Consult the Classified Telephone Directory under "SAWS", or write the nearest Simonds Branch Office.

SIMONDS
SAW AND STEEL CO.

FITCHBURG, MASS.

Branch Offices in Boston, Chicago, San Francisco, Portland, Ore., Canadian Factory in Montreal, Quebec.

be a vital and living thing, and that it is an insurance policy.

L. T. Webster, Washington assistant state forester, stressed the importance of mobile tanker units, having slip-on tanks and fog units. He said the use of strainers has saved many a pump.

A. B. Everts said chemical fire extinguishers are very efficient and that yarders, loaders, shovels, power saws and trucks should be equipped with extinguishers.

A one hundred dollar check was presented to E. E. Bailey, College of Forestry, U. of W., for his essay on "Increasing Economic Utilization of White Fir." A $75 check was given D. M. Thom of School of Forestry, of Univ. of B. C., as second prize.

President Earl Tanner presents prize checks to student essay winners. Left to right, Mr. Tanner, Edward E. Bailey, who won first award; D. M. Thom, second place winner.

Left to right: Elmer Surdam, National Forest Industries Communications, Lewis Simpson, Southern Oregon Conservation & Tree Farm Assn., L. R. Sheeley, General Electric Co., Fred Destken, and display of General Electric radio telephone equipment at the Conference.

SNAG CUTTING PROGRESS

George Drake, Simpson Logging Co., lead the discussion of the "Overall Protection Problem." The discussion brought out the fact that great strides are being made in snag cutting. Mr. Drake said the cost of snag falling should not be considered an out of pocket expenditure since it makes forests safer and reduces the fire hazard. The practice also reduces logging costs.

William Hagenstein reported briefly on some snag falling work which indicated a surprising low cost.

Dwight Phipps, acting Oregon forester, said snag cutting costs ranged from 49 cents to 79 cents. Clarence Richen, Crown Zellerbach Corp., said their costs ran from $14 to $15 per acre. He said they endeavored to get some recovery from the snags. They cut about 40,000 snags per year in the regular operations. He said it would be better to cut snags ahead of logging. They have experimented with shaking snags with powder.

Bob Sinclair of British Columbia said it costs from $3.75 to $10 per acre to fall snags.

Mr. Orell said a new law will be proposed in Washington which will require the falling of snags with logging.

The slash problem was discussed from many angles. Dean Jeffers of Moscow, Idaho, said a slash plan is now being worked out in Idaho which he said he hoped would meet the needs of industry as well as those of the public.

Top left to right: Robert L. Kranhold and Raymond W. Cummins, and display of Motorola radio telephone equipment. Bottom left to right: W. L. Babcock, and Craig Belk, and display of RCA radio telephone equipment.

NEED MARKETS FOR LOG GRADE PRODUCTS

Discussing the "Harvesting of the Forest Crop," William Welch, Crown Zellerbach Corp., stressed the great growth of tree farms, no less than 23,000,000 acres being so managed at present. He said in the South paper is now being made from trees cut on lands that were as bare as a table top twenty years ago. He said tree farming is now accepted by men who only a few years ago thought it a foolish idea.

T. W. Collins said good forest practice regulations are now incorporated in state laws. He said he thought the standards followed by private operators were higher than those set by law. The important thing he said is to get the idea through to all who work in the industry. He said public agencies should take steps to make their timber available and that the great drain should not again be placed on private timber lands.

E. P. Stamm said outlets are needed for low grade forest products and that market research is a real need of the forest industry. He said there should be more road building, intelligent cutting, adequate fire protection. He said our forests should become the envy of the world.

Gordon Manary, The Pacific Lumber Co., said there is good compliance with the law but that there can still be some tightening of regulations. He said redwood operators seek maximum production from their forest lands and better utilization.

CO-OPERATION AND COSTS

W. H. Price, manager of Shasta Forests Co., was chairman of the

session on "Cooperation and Costs in Managed Conservation."

E. W. Tinker, secretary, American Paper & Pulp Association, in calling attention to the great strides made in private forestry and tree growing, said that unfortunately the realities of this situation are not fully understood by men in legislatures and executive positions of government. He declared that such men must be given the facts and that the public generally should be informed of the rapid progress of intelligent tree farming through America.

E. T. F. Wohlenberg presented some information on "Some Aspects of Long-Term Forestry." He said the matter of taxes is important and must be studied carefully. Depletion, he said, is another place where errors can easily be made. He said good accounting methods are needed in setting up a long-range program and that such methods must fit the individual operation. He said interest is not too important in the case of an operating company, but creates a real situation in the case of a holding or non-operating company. He said any sound program must take into consideration the losses which may come in depression periods.

A. D. LeFors, Hammond Lumber Co., discussed the importance of studying the taxation problem in connection with a managed forest program. He stressed the importance of working with tax agencies as well as government spending agencies.

RADIO IN THE WOODS

Friday afternoon was given over to discussion of radio problems. Walter Hyatt, Hammond Lumber Co., presided.

Elmer Surdam, secretary, National Forest Industries Communications, told of the work that had been done in obtaining space for the forest industries.

G. A. Playfair, B. C. Forest Service, told of the problems in B. C. due to long distances involved and the lack of power in remote areas. He said they plan to use more FM with relay stations.

Lewis L. Simpson, Southern Oregon Tree Farm Association, told of the joint use made of radio by operators in that area. He said the cost was quickly paid for out of benefits. He said multiple use also saved air channels.

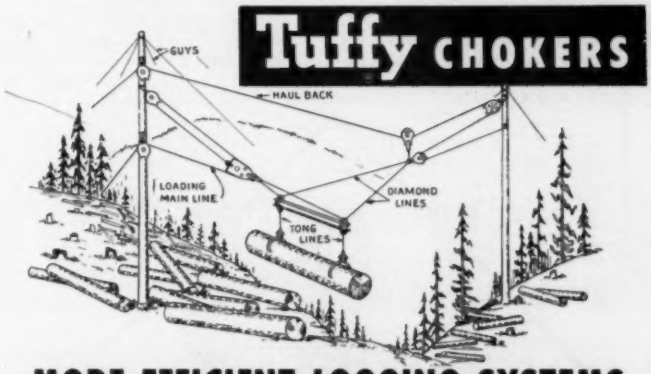
Representatives of the states and Federal agencies explained their setups. All are using the air extensively. B. L. Orell said the state of Washington will have 410 sets in 1951. Washington is using AM but will hook up different networks with FM.

Radio telephone has proved invaluable to the New Mexico Timber Co., with operations widely scattered in northern New Mexico, according to Robert Gallagher, who spoke on "A New Mexico Logging Operation's Experience With Radio."

The company has 14 mobile and three base stations. They use radio in dispatching logging trucks over its 26-mile highway. "The road is marked off in miles," said Mr. Gallagher, "according to the phonetic system—Mile Able, Mile Baker, Mile Charlie, etc., and through our radio telephone system we can keep track of our trucks, and keep them from colliding on the road.

"The company has a sawmill in the town of Gilman, and there is no telephone within 14 miles of this village with 170 inhabitants. Our radio telephone system handles Western Union messages, emergency phone calls for the citizens of the town, and many other uses.

"We have a new sawmill at Winslow, Ariz., and lumber will be



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hauled by highway truck and trailer from there to Bernalillo, some 330 miles away. We are planning on installing mobile units in these highway trucks so we can keep track of them on the long haul. We intend to install 450 mg. repeater stations to reach Winslow from Bernalillo."

L. R. Sheeley, General Electric Co., Electronics Division, San Francisco, spoke on a "Field Survey for Radio Needs." He pointed out that forest industries users must have a field survey, especially in the West. He stated that such surveys were not cheap, costing the manufacturers about $400 each.

Before a survey is asked for, Sheeley said, the prospective user should locate an antenna site, then the radio engineers don't have to spend their time doing this, and can get right to work on the survey. Next the minimum power requirements for the main station, and the number and power of the mobile units should be figured out. With this information at hand the radio engineers can sit down and do a job.

Craig Belk, sales engineer, RCA, San Francisco, spoke on "Specifications for a Forest Industries Radio System."

Last speaker on the program was Raymond W. Cummins, Motorola, Inc., Portland, Ore., who read a paper prepared by Bernard T. Olson of the same company, who was not able to attend the meeting.

OFFICERS

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Secretary—Clyde S. Martin, Tacoma.

Treasurer—C. S. Cowan, Seattle.

Forest Counsel—Stuart Moir, Portland.

Asst. Secy.-Treas.—Carl V. Hersey, Portland.

Photogrammetry Meeting

A large number of foresters attended the forest photogrammetry meeting at San Francisco, December 5, just preceding the annual meeting of the Western Forestry and Conservation Association.

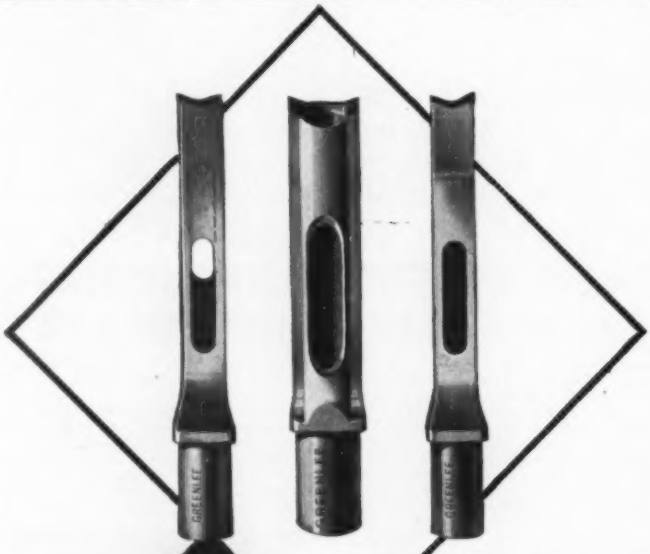
At this meeting there was an exchange of information on practices and methods employed in different parts of the country and by the various forest agencies. There was universal agreement that use of photogrammetry is steadily increasing as its many advantages become better appreciated. The idea prevails that more and more arduous field work can be eliminated through use of pictures. The importance of reflights was stressed. One speaker said reflights should be made at least every ten years. Better classification information was said to be needed.

Joe Cecil Takes Over Sawmill

The Joe Cecil Lumber Co., is now operating the former Port Angeles Forest Products mill at Port Angeles, Wash. Mr. Cecil plans a number of improvements. Years ago Mr. Cecil worked in the Bloedel-Donovan Lumber Mills, Olympia Peninsula logging operations but for some time has been with the Siler Lumber Co. in Seattle. C. B. Kindred is plant superintendent and Frank Rogers foreman.

Pressed Board and Floor Tile from Sawdust

Stoltze Land & Lumber Co., Columbia Falls, Mont., has announced plans for manufacturing pressed board and floor tile from sawdust and other wood waste products. This organization has been carrying on investigations in this field for nearly two years. Recent tests have proven encouraging, according to Harry Preston, general manager. He says the anticipated processes should make use of materials that have previously been used for fuel.



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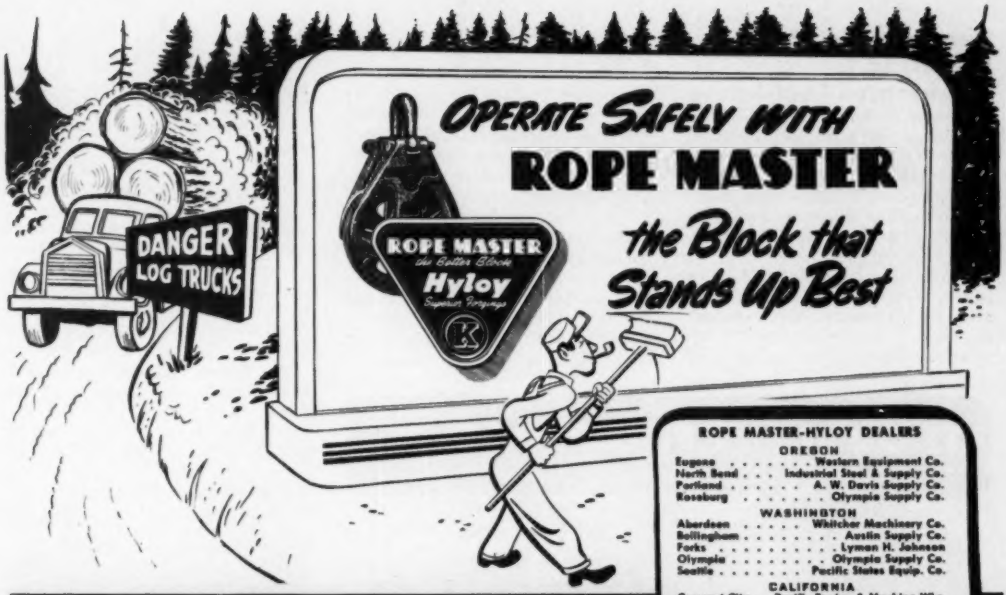

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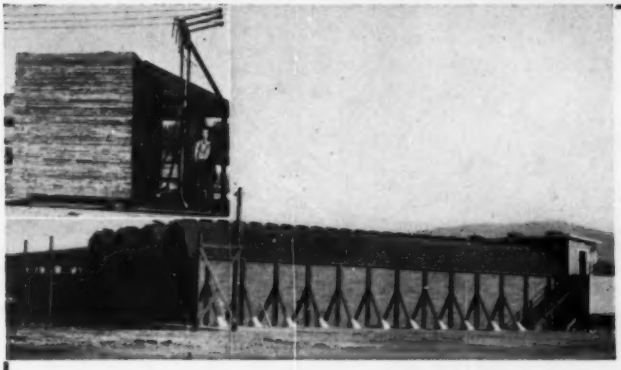

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Progressive lumbermen are installing **Moore Cross-Circulation Kilns** or converting their old style kilns to this modern design.

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VANCOUVER, B.C. JACKSONVILLE, FLORIDA
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Lumber solid piled for seasoning in this design kiln means greatly increased holding and drying capacity and lower drying costs.

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CROSS-CIRCULATION MOORE INTERNAL FAN SYSTEM

Vernon A. Smith Reelected to Washington Legislature

Vernon A. Smith, vice president in charge of sales of Kenworth Motor Truck Corporation, and veteran of six state legislative sessions, was elected on the Republican ticket November 7 as Representative from the 46th District in the Washington State legislature.

Among the important legislative committees on which Smith has served during six previous sessions are Harbors and Waterways (chairman), Banks and Banking, Cities of the First Class, Commerce, Corporations other than Municipal, Education, Educational Institutions, Engrossment, Enrollment, Public Utilities, Revenue and Taxation, Roads and Bridges, Transportation, Transportation other than Automotive, and State Penal and Reformatory Institutions (chairman).

The latter, incidentally, was initiated by Smith, who aided in the passage of a bill which provided for honor camps for first offenders. This bill has often been referred to as one of the most progressive and humane measures ever passed by any legislative body.

New SKOOKUM Strawline and Haulback Fairleads are especially designed for strawline or haulback service. These new Fairleads designed by experienced SKOOKUM engineers . . . tested in the woods . . . withstand long years of rugged use. Save you time and money in your logging operations.

New SKOOKUM Self-Aligning Fairleads are built for line size ⅜", ½", ⅝" and ¾", incorporating manganese steel sheaves, heavy duty roller bearings, and alloy steel housing. True balanced head revolves on roller bearings at the slightest pull of the line. Crushing and line fouling is eliminated. Line groove wear on the housing is also eliminated.

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A System

(Concluded from Page 82)

has been installed in car of John Rukavina, logging superintendent, and several pick-ups, including the cat doctor's and the forester's.

Tests made approximately a year ago utilizing a temporary antenna showed conclusively, according to F. I. Deetken, district representative, radio communication & microwave, General Electric Co., San Francisco, that dependable two-way communication could be maintained 100% from Martell to the end of the company's logging operation.

The General Electric system will operate 49.26 megacycles, and the fixed and mobile stations will operate with a carrier power of 60 and 50 watts respectively.

A Half Million Dollars

(Concluded from Page 59)

by a 70' x 200' addition for dry storing of finished lumber. This is a truss type structure completely free form supporting posts other than along the walls.

Throughout the plant operations, grading tables have been equipped with combination lighting consisting of 400-watt mercury vapor and 600-watt incandescent bulbs. Mr. Nelson finds this system particularly beneficial and notes improvement in grading and also a reduction of strain and fatigue on the graders.

Recent building construction at the plant provides extensive protection for lumber, both in storage and loading. The covered loading dock was extended to provide cover for loading 8 additional cars, giving facilities for loading 21 cars simultaneously, all under cover. Four sheds were built for storage of rough, dry lumber. These new buildings are equipped with Grinnell automatic sprinkler systems for fire protection.

Lumber transportation between the various plant operations, and the handling to and from storage, are carried on by means of 7 lumber carriers and 3 lift trucks, of which there are 5 Ross carriers, 2 Gerlinger carriers, and 3 Gerlinger lift trucks.

Key operating personnel of the Newport plant, in addition to Plant Superintendent Nelson, include the following: Herman Falk, sawmill foreman; Vic O'Berg, green and dry lumber handling foreman; Gerald Bennett, dry kiln operator; Charles Falk, planer foreman; Emil Velturi, shipping clerk; Ole Nelson, river foreman.

Pacific Lumber Co. Makes Improvements at Scotia, Calif.

For several years a big, 10′ band head rig in Mill B, Pacific Lumber Co., Scotia, Calif., has been driven by Vulco Rope Vee belt drive, with very satisfactory results, according to company officials. The Vee belt drive consists of 17 E-section belts.

Power for the head rig is supplied by a General Electric 250 hp. motor. The motor is mounted on an American rocking base to keep tension constant on the belts. The head rig is fitted with roller bearings.

250 h.p. GE motor driving 10-foot band head rig with 17 belt E section Vulco rope Vee drive in Pacific Lumber Company's sawmill, Scotia, California.

Belt life is prolonged, and no slippage are a couple of advantages in the Vee-belt drive, Palco officials say. It is probable that Vee-belt drives will be installed on the other rigs at the plant.

Other improvements are being made in the big plant at Scotia. A 72″ Filer & Stowell horizontal resaw has been installed in Mill A, and a merry-go-round has been built around it. Material will be picked off the green chain and sent over to the resaw on live rolls.

A new burner, 90′ dia. and 113′ high, has been built at Mill A. A 60″ Wickes gang saw is being installed in Mill B, as well as a 72″ vertical Filer & Stowell resaw.

Wisconsin Lumberman Dies

Archie L. McBean, Park Falls, Wis., widely known Lake States lumberman died recently. He managed the activities of the Edward Hines Lumber Company, White River Timber Company and affiliated interests in Wisconsin and Michigan from 1924 to 1949 when he retired.

He always took a very active interest in Northern Hemlock and Hardwood Manufacturers Association affairs, serving for many years on the Bureau of Grades of the Association. He served on the Board of Directors for 18 years from 1931 until his retirement from active business in 1949.

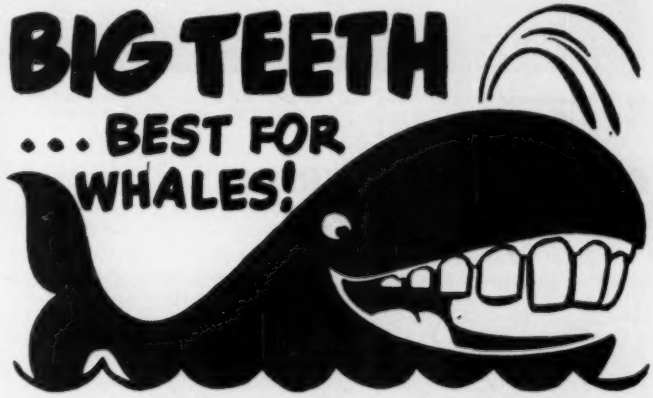
Buys Site for Hardboard Plant

Gordon B. Lynch, representing Washington Hardboard Products Inc., recently purchased at a sheriff's sale the plant of the South Bend Fabricating Company, Raymond, Wash. He bid $51,000 for the property. It was stated that the plant has a replacement value of about $400,000. Washington Hardboard Products Inc., plan to establish a hardboard plant on this site.

W. E. Rutledge Dies

W. E. "Gene" Rutledge, age 60, manager west coast department, Hilgard Division of Georgia-Pacific Plywood & Lumber Co., Chicago, Illinois, passed away at Evanston Hospital, Evanston, Illinois, December 2, after a lingering illness. Previous to joining forces with Hilgard Lumber Company in January, 1947, Mr. Rutledge was associated with Hammond Lumber Company for 38 years.

A new 35M foot sawmill is being built by *Harshman & Starks* at Bandon, Ore. The mill is located on the new Bandon Timber & Lumber Co. dock.



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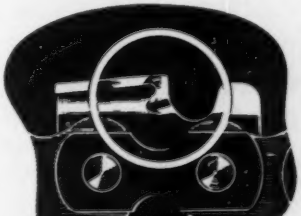

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Right: Second annual Saw Filers' conference, held under the auspices of Brizard-Matthews Machinery Co., Eureka, Calif. Left: George O'Donnell, head filer, Hammond Lumber Co., Samoa, Calif., Senator Richard Nixon, Guest Speaker, A. R. Swanson, head filer, Dolbeer & Carson Lumber Co., Eureka, Calif.

SAW FILERS CONFERENCE AT EUREKA, CALIF.

About 125 saw filers from all parts of California's Redwood Empire assembled last month at Brizard-Matthews Machinery Co. Eureka, for the second annual saw filers' congress held under the auspices of Brizard-Matthews.

Guest speaker was Republican Senator Richard Nixon, who was introduced by R. W. Matthews, president of Brizard-Matthews. Russell Lynch, head of the Atkins saw department, Brizard-Matthews, was in charge of the meeting and program.

The following visiting representatives were introduced: Ollie Bass, Pacific Coast general manager, E. C. Atkins Co.; Art Roark, Pacific Coast manager, chainsaw division, E. C. Atkins Co.; George Bass, territory representative, E. C. Atkins Co.; Lloyd Armstrong, president, Armstrong Mfg. Co.; Louis Walker, representative, Carborundum Co.; Richard Wagner, representative, Pacific Abrasives Supply Co.

Brizard-Matthews Machinery personnel were introduced. They were: Ralph Lyman, sales manager; Fern Freeman, office manager; Paul Posey, parts manager; Jack Morris, service manager; Jack McManus, credit manager; Roy Johnson, mill supplies and chain saws; Art Kennedy, salesman for Humboldt county south of Eureka; Neal Ford, salesman for Humboldt county north of Eureka; Ralph Luick, salesman for Humboldt county north of Klamath, Del Norte and southern Curry county; and Walter Wilkins, floor salesman.

George O'Donnell, George Hartman, Al Johnson, and Charlie Langdon were on the filers panel to discuss heat tensioning; Harold Trimble, Harry Woll, Jean Masters, and Bill Frye, discussed I. T. circle saws with stabilizing holes; Paul Shanahan, Vince Still, Jim Harper, and Charlie Tuininga and Duke Morrison discussed segmental trim saws; Adolph Koski, and Stan Preble discussed high speed teeth; George Hartman, Sam Jones, Cliff McGee, and Noel Crawford discussed headrig band saws; Bill Norris, Garth VanDeVanter, Ray Johnson, Henry Vogel, Jean Masters, and Jay Skiles, talked on chain saws; grind wheels and filing was the topic of George O'Donnell and Al Johnson.

A buffet luncheon was served at noon.

MORE ON HOW TO FILE SAWS TO CUT FROZEN LOGS

By N. H. ANDERSON, Head Filer
PESHASTIN LUMBER & BOX CO., PESHASTIN, WASH.

I guess I am slow at getting in my three cents worth on how to saw frozen logs, but I hope I'm not too late.

I sure did enjoy reading in the November LUMBERMAN what the other filers had to say on the subject.

Here at the Peshastin Lumber and Box Co., we are putting in a new one-man carriage, built in our own shop. It has an electric set works and blocks, and a 14" shot gun feed. It is going to be a big improvement over the old carriage.

We have tried most everything in sawing frozen logs during the ten years that I have filed here. We have run the mill as slow as 7500 rim feet, and it worked well. We have also run the mill as fast as 14,000 feet in summer, but it did not work so well. 11,000 feet seems to be the fastest we can run the mill and still cut what looks like lumber. We have finally settled at about 9,000 feet, which seems to beat all other speeds for us.

We run a 2-inch tooth space in summer on our 7-foot mill, 14 gauge saws, and swage out to a 6 and shape to a 7 gauge swage. We run 27 degrees hook at ⅞ inch depth of tooth.

In winter we now run a 2¼ inch tooth, 1 inch in depth; 35 to 36 degrees of hook, and we shape to

an 8 gauge swage, and our cut drops very little over what it is with the summer saws.

The wheels on the band mill are always in good shape for winter sawing. If not, we regrind the wheel, which helps more than one would think. The mill is always realigned, tracks straightened, and everything else kept in good shape.

Our logs freeze clear through even though we do have a hot pond. The trouble is that the logs do not stay in the hot pond long enough.

So far we have found that having summer saws and winter saws, and leaving the mill run at 9,000 feet, works the best of anything we have tried so far.

We have a good sawyer in Jack Dempsey. He does a good job of sizing up each log to determine the best and easiest way of sawing it.

I believe it takes well sharpened, well put up saws, plus a good sawyer, and when one has this combination I do not believe the files has anything to fear from frozen logs.

I am in hopes that more filers will write in with ideas. We here at Peshastin are willing to try new ideas.

Named Head Filer

Fred A. Clark has been appointed chief filer for the Victoria Lumber Division, H. R. MacMillan Export Co., Chemainus, succeeding Phil Quelch, who has gone to Montreal as a special technical representative for Simonds (Canada) Saw Co.

Mr. Clark has been with the Chemainus mill since 1926. Mr. Quelch was a veteran of that operation, too, and during his stay in Chemainus he built a complete model sawmill which attracted wide attention.

Building New Sawmill

The Engler Huson Co., Grants Pass, Ore., is building a new mill on the site of the old Merlin mill at Merlin, Ore. A 36″ Swedish log gang mill, an 8″x72″ Sumner edger and a 28′ Portland Iron Works Selective trimmer, will be installed. The mill will be 45′x150′. The capacity will be between 90,000 and 100,000 feet per day.

This mill will be operated under the present Engler Huson Company Corporation with the same officers and personnel.

The mill design is being done by C. W. Huson and Assistant Manager T. J. Hedrick. Timber Structures is building the mill frame and John Eckland will be the superintendent in charge of installing machinery and construction work.

INCREASE SHINGLE PROMOTION

RED CEDAR SHINGLE BUREAU PLANS AGGRESSIVE ADVERTISING CAMPAIGN IN 1951

The membership roster of the Red Cedar Shingle Bureau in the last eleven months has increased by 16 mills with 38 machines, reported Secretary W. W. Woodbridge at the Thirty-fourth Annual Meeting of the Bureau, held at the New Washington Hotel, Seattle, December 8. The Bureau now represents 650 shingle machines, or almost the total manufacturing capacity of Oregon, Washington and British Columbia.

Having completed a successful year of advertising in conjunction with the Stained Shingle & Shake Association, the Red Cedar Shingle Bureau is planning an increased budget expenditure for advertising in 1951, without any increase in membership dues.

Public relations activity of the Bureau is principally working with formulators of building codes. Four nationally-recommended building codes gave the green light to shingle roofs in the last year. The American Standards Association is building a fifth code promising to do likewise. This is more than a minor triumph for one year.

Feature speaker of the meeting, Arthur A. Hood, Chicago, emphatically stated that shingle manufacturers needed to do more wooing of top flight retail dealers, inasmuch as they control 75 percent of new home sales and almost the same percentage of re-roofing sales. He foresees 40 percent less consumer buying of building materials in 1951, but not necessarily less shingle sales, if more aggressive selling is done.

Last year's directors were all re-elected. The new president is W. H. McLallen of the Capilano Shingle Co., Ltd., Vancouver, B. C. Earl S. Waser of Rainier Mill Co., Rainier, Ore., is the new vice president. Virgil Peterson and W. W. Woodbridge were re-elected treasurer and secretary, respectively.

Inspecting miniature bundles of Certigrade red cedar shingles, a product to receive much trade promotion in 1951 by the Red Cedar Shingle Bureau, are left to right: newly-elected Bureau vice president Earl S. Wasser; newly-elected president W. H. McLallen; re-elected secretary W. W. Woodbridge and re-elected treasurer Virgil G. Peterson.

Forest Service Veterans Retire

Assistant Regional Forester Fred Thieme of Missoula, Montana, has retired. For 29 years he was head of engineering activities in the Northern Region. He has been succeeded by Howard R. Jones of the Washington D. C. office.

Meyer H. Wolff, assistant regional forester in charge of the Division of Land Use and Watershed Management for the Northern Region has retired after 41 years service.

Shipyard Using Australian Gum

Sagstad Shipyards is using Australian gum for stem timbers in vessels now building in their plant in Seattle. Ordinarily Douglas fir has been used for this purpose but the shipbuilding company finds that it is able to obtain the gum on a price parity with fir. Also they report having had difficulty interesting fir mills in the grade of material needed. The stem timbers are cut outside the heart of butt logs.

SPECIAL PROCESSES FOR DRYING WOOD

Special processes of drying wood faster than the conventional methods of air seasoning and kiln drying, are already being used on a limited commercial scale and probably will find wider application in the future, Harold N. Tombach, research director of The Lane Company, Inc., Altavista, Va., told the recent 1950 annual meeting of The American Society of Mechanical Engineers.

The special methods Mr. Tombach discussed were vacuum seasoning, drying with super-heated steam, vapor drying, boiling-in-oil, drying with infra-red rays, dielectric heating and solvent seasoning.

"The success of these special methods has often been hampered by either one or both of the following facts: speedy drying has resulted in poor seasoning quality; intricate equipment has made the process too expensive for general application.

"Among the items making up the cost account of any drying process, there are some, where conventional kiln-drying is hard to beat," Mr. Tombach pointed out. "This is the case in regard to cost of unit of heat generated and of drying medium employed, since in kiln-drying usually cheap steam and air at no cost are used. Also in most cases, special methods require more expensive equipment.

"However, there are other cost items where special methods have some chance to compete with their well established rival. One obvious one is reduced interest on capital invested in lumber, because of more rapid turnover. Also in some cases, labor cost and degrade of the seasoned wood may be reduced.

"Further, again because of more rapid turnover, amortization cost of the drying equipment may be lower. Finally it is conceivable that some savings could be accomplished through reduction of the amount of unprofitable heat losses."

"Because of the insufficient speed of drying, none of the processes can be used for continuous, or conveyor drying of wood in lumber sizes," Mr. Tombach explained. "All processes can be used for batch drying, except when the lumber is heated by radiation, and in the case of radio frequency heating the size of the batches necessarily will be very limited. The radio frequency and radiation processes require electricity for producing heat, while the other methods use steam or other heating means.

"The expensiveness of the drying equipment is a major cost item with vacuum, vapor, dielectric and solvent seasoning," Mr. Tombach said.

"In drying to low moisture contents, a quality of seasoning comparable to that found with kiln-drying, or even better, may be obtained with the vacuum, dielectric heating, and solvent processes, in cases where these are applicable. Severe case-hardening of lumber dried to lower moisture contents is characteristic of processes using non-polar drying agents, for instance the vapor drying and boiling-in-oil."

Tests made by Mr. Tombach showed that boiling-in-oil gives "relatively good results" when the moisture reduction is limited, that is, the wood either is dried from the green state to a moisture content above the fiber saturation point, or from a moisture content below the fiber saturation point to any final moisture content. It is very likely that analogous results are found with vapor drying, he said.

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SOUTHERN PLYWOOD PRODUCERS ESTABLISH INSPECTION SERVICE

Formal announcement of the Southern Pine Manufacturers Association inspection service was a highlight of the association's Fall Meeting held at the Henry Grady Hotel in Atlanta, Georgia. This service is an important addition to the quality control program of the Southern panel makers which they inaugurated over two years ago with the establishment of the association plywood testing laboratory in Atlanta, Ga.

John L. Butler has been selected by the Southern Plywood Manufacturers Association to establish the inspection service and serve as its first plywood inspector. Mr. Butler brings a well developed background of both formal education and practical experience to his new activity.

John Butler is 32 years of age and a native of New York City. He graduated from the College of Forestry, New York State Ranger School, Syracuse University in 1937 with a Bachelor of Science degree in Wood Technology.

Prior to World War II, John was employed by Union Bag & Paper Corp., Savannah, Ga. as a Forester with duties as a timber cruiser and logging superintendent. For two years he was Wood Technologist at Rayonier, Inc., Fernandina, Fla. where he originated and carried out procedures for correlating quality of incoming logs with quality of finished high grade dissolving pulps.

During World War II, John served as a First Lieutenant in Artillery and the Air Corps. In this latter assignment he headed the Wood Unit of Materials and Processes Branch, Inspection Division, Air Technical Service Command, Wright-Patterson Air Force Base, Ohio.

Since separation from military service, Mr. Butler has been employed by Tidewater Plywood Co., Brunswick, Georgia and Darlington Veneer Co., Darlington, S. C. His work at these mills has covered all phases of plywood production including such duties as plant engineer, supervisor or quality control inspection and testing, foreman of gluing operation and supervisor of dry kilns.

Mr. R. A. Hertzler, Chief of the Wood Utilization Division, Southeastern Forest Experiment Station, Asheville, N. C., presented an interesting and informative talk on Southern Hardwood timber in which he strongly urged the standardization of hardwood log grades in the South. By the use of prepared charts and with survey figures for the years 1937 and 1947, he showed

JOHN L. BUTLER

that the percentage of hardwoods on southern timberlands is now 40% of the total and is increasing. This increase, however, is in cull trees of desirable species and those species whose usefulness has not been established. Despite heavy demands for it, Yellow Poplar has increased in supply. Among his suggestions to increase the volume of hardwoods in the South and also improve their quality, Mr. Hertzler recommended more planting of hardwoods, improved cutting practices, and research to develop better utilization of all hardwood species.

Association members and their guests were impressed by the forceful presentation of current emergency production planning by M. C. Lorenz, Procurement Section, Corps of Engineers, St. Louis, Mo. He gave in some detail those factors which make such planning advisable and explained how individual plywood manufacturers may cooperate in this voluntary production allocation program. Basically the program is a voluntary agreement on the part of a manufacturer to furnish certain kinds and quantities of material to the government in the event of a national emergency. When M-Day, the day of total war mobilization is declared, the manufacturer immediately begins production on those previously agreed items for the government, and in turn is assured of receiving those supplies required by him to produce the government orders. Those manufacturers present indicated a desire to cooperate in this emergency production planning program.

New Plywood Plant

Mar-Linn Timber Co. will start construction of a plywood plant at Winchester, Ore., shortly after the first of the year, according to Harold Jones, president of the firm. This is planned as a single production unit plant with 3 to 3.5 million square feet output monthly. Production of green veneer is anticipated to start in April. The plant is expected to operate mostly on salvage timber in this area.

The plywood will be marketed through Western Veneer Co. Mar-Linn Timber Co., in conjunction with Western Veneer operates veneer or plywood plants at Lebanon, Sweet Home, and Junction City, this one known as Valley Plywood Company.

Ivan Vrooman, formerly superintendent of Cascades Plywood Co., will be manager of the new Winchester plant. Other key personnel will include Hugo Harder, of Western Veneer Co., Sweet Home, as superintendent; Virgin Rothrock, Portland, master mechanic; and Robert Wise, Eugene, expediter of construction and materials. James E. Slattery, Roseburg, has been named in charge of timber. For the past 12 years he was district supervisor for Bureau of Land Management.

Active Winter for Canadian Industry

The Canadian lumber industry is expected to operate at close to capacity for the balance of the winter, according to federal government authorities at Ottawa. The United Kingdom has re-entered the market for west coast lumber on a large scale and is also purchasing considerable quantities of eastern spruce from the maritime provinces. As a result of imposition of credit controls and reduction in house construction in the United States resulting in some decline in lumber demand from that market, the situation improved in November and December and Canadian mills were making large shipments south of the border.

B.F.Goodrich

The tire that should lose but doesn't

WHEN water, sharp rocks and rubber start fighting—it's usually the tire that has the handicap. The water acts as a lubricant, causing the tires to spin — while the sharp rocks cut at the slipping rubber.

But the BFG Rock Logger tires shown above are an example of how B.F.Goodrich builds tires to lick tough problems.

To resist cutting, these tires have a special, tough tread—compounded for rock service. To resist slippage, the heavy cleats on the shoulders are non-directional . . . they dig in for a non-slip bite, in forward or reverse. To give real shock protection to the cord body, these and other B. F. Goodrich off-the-road tires have a patented *nylon shock shield* (double in larger sizes).

Found only in BFG tires, the shock shield is made of two nylon cord breakers. This is vulcanized between the tread and cord body to protect the life of the tire against the shocks of hard service.

The Wallowa County Road Department office in Enterprise, Oregon, operators of the equipment shown above, have this to report: "The B. F. Goodrich tires have given longer and better all-around service than any other brand we have used." In other words, the tire that's hard to cut is the tire that cuts costs.

Whatever job your off-the-road equipment must perform, there's a special BFG tread built to help you do it better. In addition, you get the exclusive protection of the nylon shock shield at no extra cost.

So see your B. F. Goodrich dealer. And specify BFG tires for your new equipment. Enjoy the longer life and lower operating costs offered you by *The B. F. Goodrich Company, Akron, Ohio.*

RESEARCH KEEPS B.F.Goodrich FIRST IN RUBBER

Sawmill Fires

A $50,000 fire destroyed the planer and resaw plants of Pacific Mill Co., Creswell, Ore. late in September. According to O. E. Hoodenpyle, millwright, the cause of the fire was unknown. This mill, built 6 months ago, is owned by Nels Ohrling who also owns the Ohrling Lumber Co., Eugene.

The planing mill of Tygh Valley Lumber Co., Tygh Valley, Ore., was wiped out by a fire resulting in $125,000 loss.

Modernization

(Concluded from Page 54)

No. 2 resaw: and No. 4 ahead of No. 2 resaw. Thus every piece of lumber receives individual inspection at every stage of its manufacture to determine whether its quality can be further improved by additional processing.

The two new green chains, replacing three previous units, are of unusual design. One receives 1" lumber and thicker stock goes to the other. Each side of both green chains is equipped with powered pull-off rolls, each drive section of which is driven by 3 h.p. General Electric motor through Pacific Gear & Tool Co. gearhead and Link-Belt roller chain. The Link-Belt 78 carrier chain is used on both green chains, each section of which is driven by 7.5 h.p. General Electric motor through Pacific gearhead to Link-Belt roller chain.

The green chains sit on rock-filled base with concrete walls and black-top topping. Yard and green chain area is hard surfaced. Larger lumber packages, 54" x 60", have recently superceded the 42" x 48" packages previously used.

Efficiencies of lumber transportation, handling and storage between green chain and loading dock were effected with the plant conversion, prime factor of which was the addition of two storage sheds which were shoe-horned side-by-side between the plant and confining hillside. One of the sheds is 575' long and the other 875'. The steel framework of these sheds was purchased two years ago in California as a 7-bay unit, and since dismantled, moved, and erected as two sheds. Two modern 10-ton P&H bridge cranes with Magnetorque controls operate in the sheds—a 60' crane in shorter shed and 70' unit in larger shed.

Lumber from green chains enters the near end of the sheds by Gerlinger carrier, of which there are 4, and is placed in storage by crane pending entering dry kilns. From the kilns it returns to the sheds and subsequently is transported up to the planing mill by crane—the planing mill is right alongside end of the longer shed. Finished lumber is returned to the shed for storage pending shipment.

Previous to use of the new sheds and bridge cranes lumber transport beyond green chains was strictly by carrier, with hauls to and from storage up to ¼ mile in length. Now the carrier runs are averaging about 100 yards.

Besides the 4 carriers, one Hyster lift truck is used for handling lumber.

The plant modernization has, in addition to improving the manufacture of the lumber, increased efficiency of power consumption. According to Mr. Jenkins, total electric power consumption has been decreased slightly and the volume of lumber produced has been increased 10 to 20 per cent as result of the plant conversion. The company gets all of its power from the adjacent Mountain States Power Co. plant, working on a reciprocal basis with Booth-Kelly furnishing the power company with hog fuel to operate the power plant.

Prior to conversion of lumber manufacturing facilities wood by-products were converted to hog fuel by but one hog. This arrangement resulted in insufficient fuel to meet needs of the power plant. However, a second hog (Sumner 35) was added in the new remanufacturing plant to convert the by-product wood to fuel. The old hog, operating near refuse burner, will be replaced shortly by a Sumner 65. Subsequent to getting this new unit in production the use of burner will be discontinued. With this set-up, fuel needs of the power plant will be met by the B-K mill.

Along with the lumber processing and transportation change-over, came a modernization in the filing room. Three new grinding machines, all Armstrong units, were installed—two bandsaw and one gang saw grinders. A. L. Peru is head filer.

Plenty of Engineering

(Concluded from Page 51)

as chips.

A carthage chipper and conveying system has been installed by Fibreboard Products Inc., and slabwood is made into chips for shipment to Fibreboard Products Inc., new pulp and board mill at East Antioch, Calif.

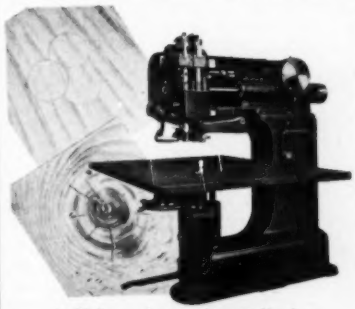
Another device aiding efficiency is used to keep logs from accumulating at the log dump. The warm water from the condensers in the power plant are flumed around to the log dump. There it enters three pipes that emerge from the bottom of the concrete log dump side. The current of water coming out from the bottom of the dump has a tendency to keep moving the logs toward the bull chain at the far end of the pond.

Some 18 acres have been added to the log pond, making the entire area 36 acres.

The company has also increased the capacity of its power plant with the addition of a new 1,250 h.p. Puget Sound Sterling-type boiler.

A new six foot Filer & Stowell resaw has been installed in the mill, and in the filing room, where H. W. Baggett is head filer, two new Armstrong saw sharpeners have been added. The filing room is also equipped with a Hanchett saw sharpener.

Now...Lumber Bored and Plugged in 5 Seconds!



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● THE EFFICIENT, fast-operating *precision* machine that permits use of defective lumber instead of carefully selected stock. Economically removes and plugs knots, resin bubbles, pitch pockets, etc. at a fraction of the cost of other processes. Its exceptionally high capacity means this machine *will pay for itself* quickly.

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Latest News and Developments in the Machinery and Equipment Field

Left to right: I. R. Walker, who has been named as general manager of the saw division of R. Hoe & Co., Inc., printing machinery and saw manufacturer. Mr. Walker, manager of the saw division's Birmingham plant since 1932, will have his headquarters in New York City. C. F. Ellefson, who has become plant superintendent of the saw division's Birmingham plant of R. Hoe & Co., Inc., printing machinery and saw manufacturer. E. J. Williamson, who has become manager of the saw division's Birmingham plant of R. Hoe & Co., Inc., printing machinery and saw manufacturer.

New Model Ford Trucks

New 1951 Ford trucks just announced feature automatic Power Pilot carburetion-ignition control on all engines. The system provides power with economy by metering and firing the correct amount of fuel at the right instant under varying loads without spark knock.

The cab and front end have been restyled to give a more rugged and smarter appearance. A new instrument panel incorporates new full-vision instruments, rheostat type instrument light switch and a hand throttle on all conventional models.

A steering column gearshift on F-1 light duty pick up models provides more cab and floor space. Performance of the F-1 truck has been improved by changing the rear axle ratio from 3.73-to-1 to 3.92-to-1.

The standard three-speed transmission for the F-1 has been redesigned for more rugged loads, longer wear and easy shifting.

Offset piston pins now are used on 95 h.p. 6-cylinder and 100 h.p. V8 engines to insure quiet operation. On F-7 and F-8 (Big job) trucks, coolant distribution is improved by means of a larger radiator tank and water by-pass tubes on the engine.

A new "5-Star Extra" cab is optional equipment on the 1951 Ford truck fleet. It is sound-proofed with undercoating on the floor, spray-on material on the doors and back panel and with roof insulation.

Roof insulation in this new cab consists of one and one-half inch thick glass wool pad cemented to the underside of the roof panel and covered with a perforated acoustic board as protection against heat and sound.

The Ford Series F-8 "Big Job" for 1951 is built to handle the toughest jobs in trucking and at the same time it is constructed for driver comfort and safety and for low-cost performance. Its size is emphasized by a new rugged front end design.

Hoe Announces Personnel Changes

The appointment of I. R. Walker as general manager of the saw division of R. Hoe & Co., Inc., printing machinery and saw manufacturer, has been announced by Joseph L. Auer, president. Mr. Walker will have his headquarters in New York. He joined the Hoe company in 1922, and had been manager of the saw division's Birmingham plant since 1932.

Mr. Auer also announced that D. Beisinger, for several years at the home office in charge of the saw division, has returned to Portland, Ore., to handle Hoe's Pacific Coast saw operations, through its offices and plants in Portland and Seattle.

E. J. Williamson, the former Pacific Coast manager, has become manager at Birmingham. He has been with Hoe since 1927. With him went C. F. Ellefson, also with long experience in the Hoe organization, to become Birmingham plant superintendent. W. S. Whitten continues as Birmingham office manager.

Mr. Walker's appointment to head the Hoe saw division followed the establishment, under his supervision, of a new band saw manufacturing department at Birmingham. The Birmingham plant is now not only producing a full line of circular saws, but is also supplying the band saw requirements of its territory, which includes the Deep South and states as far north as Missouri.

Portland Chain Mfg. Co. In New Plant

The Portland Chain Manufacturing Company has moved into its new plant at 4000 N.W. Yeon, Portland, Oregon. The company's plant burned last May. The new plant is larger and more modern than the former plant. It has the equipment and all the facilities needed to design, manufacture and supply the chain needs of the lumber industry.

Corley Manufacturing Company's new Portland, Oregon, headquarters, at 401 S.W. First Ave., (corner of Stark St.). T. T. Fridell, is factory manager, at Portland. Over 15,000 square feet of display and factory space, is provided in the new plant.

PEORIA
MALLEABLE IRON
MEETS HIGH STANDARDS!

Rugged Hyster equipment is built to strict specifications — and Peoria Malleable Iron Castings measure up! You get the same high quality Peoria Malleable Iron in Peoria Chain.

Peoria Malleable Iron Castings go into this Hyster Karry Krane — also Hyster Winches and Lift Trucks.

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Lumber To Back Up Our Fighting Men Is The First Order Of Business At Our Mills

Much of our current production is moving out on Government requisitions.

Until our United Nations job is finished we will divide the balance of our production among our regular customers who are doing essential civilian work.

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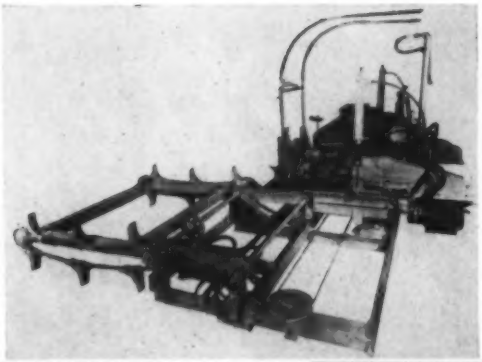


Cutout photograph of the Falconer electro-airomatic sawmill shows the principal working parts. The control panel is shown on the table in the direct center of the picture and the sawyer, located there, controls virtually the whole machine. Logs are fed in from the left to the carriage. In the background are the roller conveyers to the edger.

New Type Portable Mill

A new type of portable sawmill, fully automatic and requiring only two operators, has been designed by George Falconer and built by Golightly Machine Works, Vancouver, B. C.

So far only one model has been assembled and put into operation. The Pioneer model is now at a sawmill near Edmonton, Alberta and its trials will determine whether the machine as it stands will be developed commercially or whether some modifications may be required.

Viewed in the machine shop by a LUMBERMAN editor, the Falconer-designed electro-airomatic sawmill appears to be a compact and efficient mechanism that may go a long way towards solving the problem of sawmill operators without facilities for handling small logs economically or those who wish to take their mill right into the woods and convert into commercial lumber small logs that otherwise might be burned as slash or otherwise wasted.

The original model is built to handle 8′ logs of 6″ to 24″ diameter. Capacity is estimated to be about 10,000 feet per eight hour shift. The actual operating crew consists of only a sawyer and an edgerman, with two helpers—one to feed the logs and the other to remove the lumber as it leaves the edger, so that the mill's minimum production is estimated at about 2,000 feet per man per shift.

The mill is 33′ long without the engine —a 160 h.p. G.M. diesel, which provides all the motive power required.

The entire plant, being within the legal highway limits, may be mounted on wheels and operated as a portable unit without even removing the drive belt, or it can be installed as a supplementary unit to the main head rig.

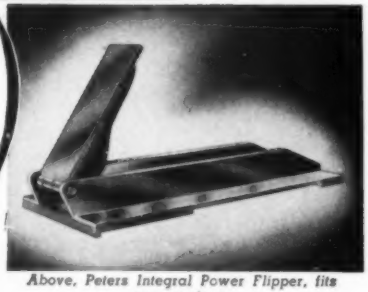
"The whole idea is to provide a fully automatic sawmill that will operate with the utmost economy of manpower," explained Mr. Falconer. "We believe that the machine will be easily maneuverable and speedy in operation."

Renold-Coventry chains and bearings are used in the mill, and the circular saw is a 48″ Simonds. Operation of the controls on a push-button basis is simplicity itself, and the sawyer standing in one position with his hand on the control panel governs the entire sawing process, one button determining the size of the cant to be cut, another receding the knees, another manipulating the turner, another the dogs, and the fifth, moving the dogs out or in. Operation of the edger is similarly uncomplicated.

Sawmill Model Circular Re-Saw

Portland Machinery Co., Portland, has had considerable success in the sale of the Trojan circular resaw (sawmill model) to smaller mills that do not have a band resaw. Favorable features of the resaw are that it has a quick set, no filing is required and an individual air compressor is provided with the machine. Specifications are: diameter of saw—38″; speed of arbor—900 RPM; size of pulley—12″x10″; standard rate of feed—100′ to 160′ per minute; floor space 5′ wide by 6′ long; shipping weight—3000 lbs.; recommended HP for sawmill use —40 to 50.

Flippers are FASTER EASIER ★ Especially PETERS Flippers



Above, Peters Integral Power Flipper, fits any carriage.

Center, Peters Bank Powered Flippers.

Bottom, Peters fraction-accurate, hi-speed Automatic Set Works.

Today most sawmill operators have concluded they can saw more logs faster, with less wear on carriage, and less damage to the timber with flippers. More and more are choosing Peters Flippers.

The Peters Integral Power Flipper, with individual air or hydraulic cylinders, fits any carriage, can be installed fast at low cost. Peters Bank Powered Flippers, operating from a common drive shaft, are recommended for carriages offering no drive shaft obstruction. Used in conjunction with the Peters Automatic Set Works, which operates from the same power system, Peters Flippers provide maximum speed and power. The Peters Set Works affords accuracy down to 1/32 inch. You Will Never Be Sorry You Chose Peters.

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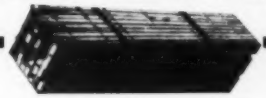
EFFICIENCY PLUS NO LOST MOTION
WHEN YOU SHIP *PACKAGED LUMBER



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EFFICIENCY MEANS: Proper facilities to handle your lumber orders

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Ship to shore telephone service

All weather Radar protection from storms and fogs

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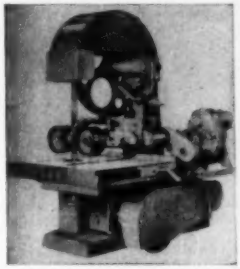

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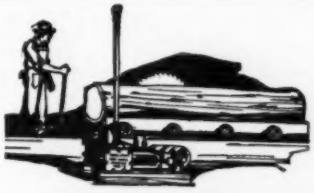

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The new Portland branch of the Seattle Chain & Manufacturing Co., located at 2258 N.W. Raleigh. The Seattle Chain organization, with headquarters in Seattle, manufactures and distributes a full line of log haul chains, log truck chains, conveyor chain and boom chain. W. J. McElroy is vice president and general manager, with offices in Seattle; and B. M. Gladd is manager of the new Portland warehouse.

Named Murphy Diesel Distributor

Oswald Machine Works, 2936 Hyde st., San Francisco, phone ORdway 3-4364, one of the best known marine engine repair companies in California, has been appointed distributor and authorized service and parts dealer for Murphy industrial engines, as well as Murphy Marine engines, according to Charles E. Oswald, managing partner of the company.

Oswald Machine Works has inaugurated a 24-hr. per day service to take care of repairs and replacements on Murphy diesel engines, all over northern California. The company has two service trucks manned by experienced mechanics which will proceed immediately to service or repair Murphy diesel engines in the field. The trucks are fully equipped with tools to take care of either major or minor repairs or adjustments to Murphy diesel engines.

Should it be to the customer's advantage, the engines can be brought in by truck to Oswald Machine Works shop in San Francisco where are located most modern and complete engine repair facilities.

Last month Paul Schnetzsky, vice-president and sales manager, Murphy Diesel Engine Co., Milwaukee, Wis., visited Oswald Machine Works, and told them of the recent addition to the Murphy engine line of a number of new models, particularly the 1400 r.p.m. engines that will work well with torque converter applications in the logging industry.

Snapped by a (LUMBERMAN) field editor on the recent visit of Paul Schnetzsky, vice-president and sales manager, Murphy Diesel Engine Co., to the Pacific Coast, with the staff of Oswald Machine Works, San Francisco, Murphy diesel engine distributors in northern California—L to R—Rolf Larsen, Charles E. "Bud" Oswald Jr., Leo Oswald, Charles Oswald Sr. (Leo and Charles are partners in Oswald Machine Works), Dick Oswald, Bob Oswald, and Paul Schnetzsky.

Take Washington Trakloader

The South Fork Lumber Co., Springfield, Oregon, recently took delivery of a TL-15 Washington Trakloader from the P. J. Hanns Co., Eugene, the distributor.

Monarch Adds Super 5-foot Band Mill to Line

A new Monarch-Western 5 foot band mill is now being manufactured by Monarch Forge & Machine Works, Portland, Oregon. This compact machine is the result of a great deal of field research among owners, sawyers and filers to determine their wants and needs, according to Ray Dunn of the Monarch engineering staff.

Because it embodies the principles set forth by the sawmill people themselves, the new 5 foot Band Mill has met with ready acceptance by those who have seen it running and have expressed amazement at its performance.

No material has been spared in making the 14,000 pound all-steel machine an exceptionally heavy unit throughout for its size. Newly designed annealed cast steel wheels (lower wheel disc type) assure more lasting accuracy.

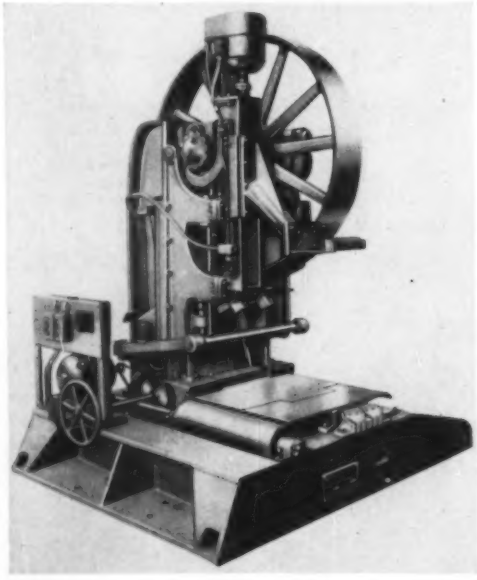
The low power requirement is attractive; for moderate operation 75 H.P. is sufficient.

Sensitive upper saw guide and saw strain are electric motor equipped with push button control, and oversize spherical roller bearings are features more frequently found in larger mills.

An unusual feature of this 5 foot mill is an opening in excess of 48" between the saw guides, no raising block is necessary. The machine is designed for either a 17 or 16 gauge saw 10" wide.

The 5 foot Monarch-Western Band Mill lends itself to a most satisfactory Line Bar Resaw.

Monarch Forge & Machine Works and the Western Machinery Corp. of Portland are distributors in the United States and Galbraith and Sulley, Ltd., Vancouver, B.C. are exclusive distributors in Canada.



New Monarch-Western 5-foot band mill, now being manufactured by the Monarch Forge & Machine Works, Portland, Ore.

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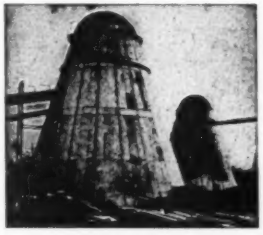

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One of the two International L-180 series trucks and trailers that will carry the International Harvester industrial power service and sales training program to every district office and distributor organization throughout the country.

International Harvester's Mobile Training Units Start Nationwide Tour

The latest service and maintenance information on International Harvester industrial power products will be brought to the company's district office and distributor service personnel by two mobile training units that have just started a nation-wide tour this month. Manning each unit will be two instructors with extensive field and factory experience who qualified for their assignments only after an extensive training program.

The instructors will present the International product servicing story with the aid of charts, slide films, and movie films. Sets of special tools and equipment will be displayed on the walls of each trailer and usage will be detailed during the discussion period.

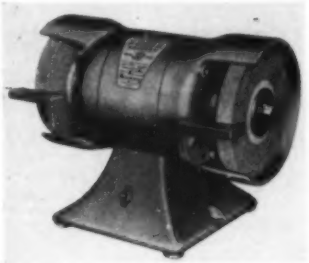
The presentation will be highlighted by the use of cross-sectioned working models of various International crawler tractor components including transmissions, hydraulic units, final drives, diesel engines, tractor rollers, and steering clutches, plus a complete fuel injection system laboratory.

One training unit will visit all district offices east of the Mississippi while the second unit will be routed to all district offices west of the river.

New 6-Inch Model A Lima DeLuxe Utility Grinder

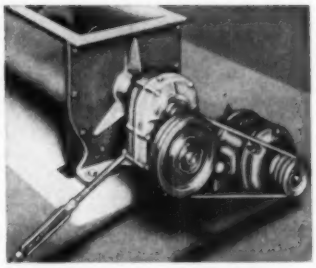
The Lima Electric Motor Co., Lima, Ohio, announces prompt deliveries on their NEW 6-inch Model A LIMA DeLuxe Utility Grinder, for use in tool rooms, machine shops, schools, home workshops, manufacturing plants, etc.

Features of this new grinder include: Dynamically balanced rotors; Integrally cast wheel guards; Adjustable tool rests (may be tilted for angular grinding); Fast-grinding, long-wearing abrasive wheels; Heavy-duty, OFF-ON toggle switch in base; Cast iron base (rubber mounted and drilled for permanent mounting); 7½ foot, three conductor, rubber covered cable with non-breakable plug (U. L. Approved).



New 6-inch model A Lima DeLuxe Utility grinder.

Progress in clearing and grubbing the right of way for the new Zig Zag-Lolo Pass Forest Development road in the Mt. Hood forest is nearly twice as fast as originally estimated, it is reported to Wood Tractor Company, Portland, by Andy Schmid, contractor. Schmid gives credit for the speed of the job to the Allis-Chalmers HD-19 diesel tractor which he bought from Wood and is using for the first time.



Dodge Manufacturing Co.'s new Torque-Arm reducer.

New Torque-Arm Reducer

A Torque-Arm Reducer for output speeds from 115 to 350 r.p.m. is announced by Dodge Manufacturing Corporation of Mishawaka, Indiana, as an innovation in the field of power transmission machinery.

Claimed to be the first and only shaft-mounted reducer designed for this speed range, the new single reduction unit is being produced in four sizes, which cover capacities up to 27 h.p.

Ease and economy of installation of the new Torque-Arm Reducer are attributed to shaft mounting which eliminates special engineering, the cost of a foundation, flexible couplings, sliding base, and the time-consuming operation of lining up.

The compact unit is locked securely to the shaft-to-be-driven by means of two steel locking collars—one on each side of the reducer. It is anchored to the floor or any fixed object by the Torque-Arm.

While this new reducer can be driven through any V-belt drive, the designers recommend stock Taper-Lock Sheaves for facility either of installation or removal and for maximum efficiency of operation. Flat belt drive can also be used.

Any required output speed within the recommended range of 115 to 330 r.p.m. can be obtained with stock sheaves properly related in size. Variations of that speed are accomplished simply by changing sheave sizes.

Accurate adjustment of belt tension can be made quickly and easily by operating the turnbuckle in the Torque-Arm.

Transferring the unit from one machine to another is simplified by the use of interchangeable shaft-keyed bushings which adapt shaft sleeves to different shaft sizes.

The reducer unit and all parts required for the entire installation are stock items regularly carried by distributors of Dodge power transmission machinery.

The designers provided for and developed a simple and positive backstop. Wherever required to prevent reversal of direction of load, it is easily and quickly installed on the input shaft within the reducer where it is sealed against dust and dirt.

A new bulletin, A-602, provides full information with easy-to-use tables for selection of the new single-reduction series of Torque-Arm Reducers.

Buys A. C. Turbine

Smith River Lumber Co., Drain, Oregon, recently purchased a 300 KW. Allis-Chalmers turbine, from Chas. Weaver Co., Portland, Oregon branch, for expanding their power facilities.

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OVER FIFTY INSTALLATIONS NOW IN OPERATION

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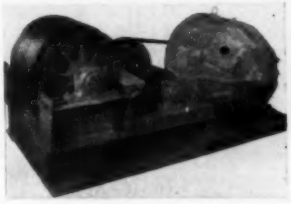

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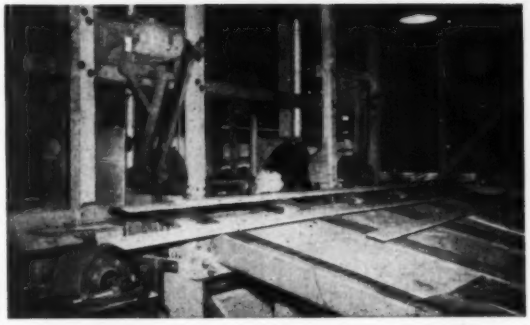

Grade trimming lumber at air operated I. W. Johnson Hula saw, Rock Island Lumber Co., Sutherlin, Oregon.

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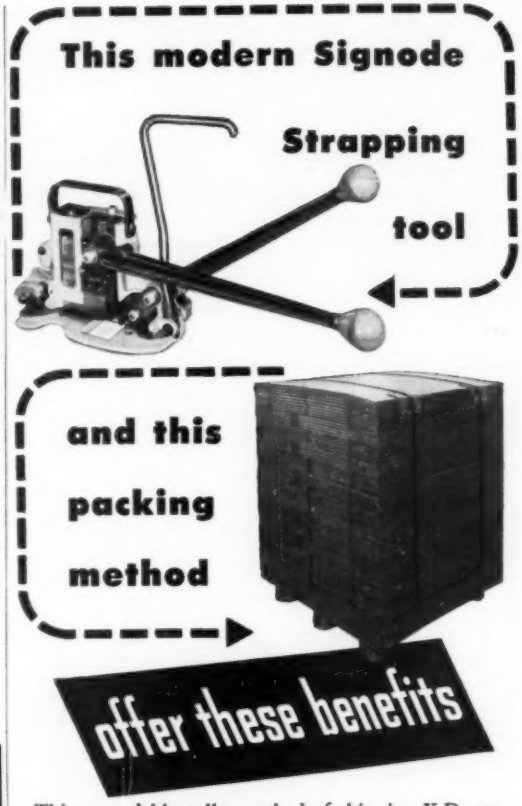

This expendable pallet method of shipping K.D. containers, using Signode steel strapping and strapping tools, is a development that offers savings to manufacturers and users all along the line.

1. Units efficiently prepared. Containers are stacked on an expendable pallet right off the taper, no delay in tying small bundles.

2. Strapping is easy. With the new, light, high-speed Model A Signode Automatic Seal Feed tool, illustrated, units are rapidly strapped to secure them for shipment.

3. Simplified storage and handling. With a completely strapped unit, multiple handling of individual twine-tied bundles of containers is eliminated. Pallets stack easily two high in a box car or two and three high for maximum utilization of warehouse space.

4. Ease of loading and unloading. Dangerous loose stacking of bundles in carloading is eliminated. Now strapped units are loaded and unloaded with power equipment with greater efficiency. Savings in unloading time have amounted to as much as $15.00 to $20.00 per car.

For further information write:

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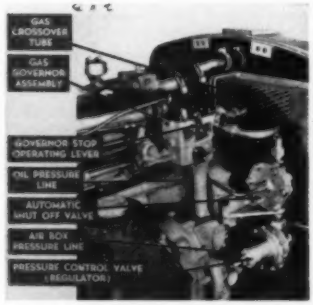
Rugged pond saw developed by Portland Machinery Co., Portland, Ore.



Close-up of GM Dual-fuel unit showing changes required on blower side of engine. Note the lever on gas governor assembly which effects instant changeover from Dual-fuel only to straight diesel or partial Dual-fuel operation.

Dual-Fuel Engine Announced By Detroit Diesel

The Detroit Diesel Engine Division of General Motors has announced a new option on Series 71 Diesel engines which enables them to burn natural gas in accordance with true Diesel high-compression principles.

This option is available both on new engines leaving the factory and engines already in use. For the latter a factory-engineered kit is available for the changeover.

The changeover permits the engines to burn either natural gas with a pilot charge of Diesel fuel or Diesel fuel alone. There is no interference with the operation of the unit as a straight Diesel fuel engine when required.

According to Detroit Diesel, the advantages of the Dual-fuel engine as developed in the field are added fuel economy in areas of abundant natural gas; instant changeover from Dual-fuel to straight Diesel operations; quick response to load (a characteristic of the GM 2-cycle Diesel) and lowered upkeep due to non-sludging properties of natural gas as a fuel.

Allis-Chalmers Announces Two New Tractors

Two new crawler tractors are being added to the Allis-Chalmers line this month, according to an announcement made by W. A. Roberts, Executive Vice President and Manager of the Tractor Division. With these two new models—known as the HD-9 and HD-15, Allis-Chalmers now offers a completely modern tractor in each of the four major power classes.

The new units, being produced in the company's expanded Springfield (Illinois) Works, are scheduled for delivery to dealers early this year.

The HD-9 weighs 18,500 lbs., and has a drawbar horsepower rating of 70. The larger HD-15 weighs 27,500 lbs., and develops 102 horsepower at the drawbar. Both have six speeds forward and three reverse.

Most of the features tractor owners, operators and servicemen are likely to find of interest are common to both the HD-9 and HD-15. One of these is a constant mesh transmission, with separate reverse gears, that lets an operator shift from forward to reverse in any speed with just one movement of a single control lever.

Power is provided for both the HD-9 and HD-15 by heavy-duty General Motors 2-Cycle Diesels.

Another important feature is unit assembly construction—a design advantage that enables servicemen to remove and install each unit in the power train—engine, clutch, transmission, steering clutch and final drive—without disturbing related assemblies.

A third major feature is the use of Positive Seals in final drive, truck wheels, idlers and support rollers. By retaining grease for a period of 1000 hours.

Other features which add to the ease and efficiency of operation include: an adjustable seat, boosted steering, convenient grouping of controls, self-energizing brakes, and a tapered cowl for better visibility.

Allis-Chalmers officials say that a complete line of matched allied equipment including bulldozers, scrapers and front end shovels, will be available for both new tractors.

Portland Machinery Co. Pond Saw

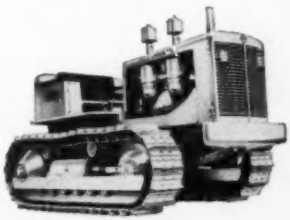
One of the first pieces of equipment around a sawmill is the pond saw. If it is not ruggedly constructed, it can be the bottle-neck for the balance of the mill. The pond saw illustrated has been built by the Portland Machinery Co. for many years. It has a 24″ stroke and is all steel arranged with V-belt drive for the motor and a V-belt drive on the second compound. Suitable ¾″ pitch double roller chain can be substituted instead of the V-belt if wanted. This machine is complete with a clutch and drum for raising the saw. It can be supplied with up to 10′ blades and has ample power. Gas, diesel or electric motor drive can be provided.

Star Machinery Co. Named Distributors

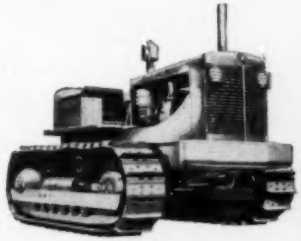
Star Machinery Company has been appointed exclusive distributor in the State of Washington, the panhandle of Idaho and Western Montana, for Turner Machinery Co. Division of United Engineering Co., San Francisco. Turner Machinery Co. builds band rip saws, vertical resaws and horizontal band resaws. The band rip saw is a 42″ machine. The vertical band resaws are made in single and twin type from 42″ to 62″. The horizontal band resaw is made in a 62″ size.

Schurman Machine Works, Woodland, Wn., announce their appointment of Star Machinery Co. as exclusive dealers for their equipment in the State of Washington, the panhandle of Idaho and Western Montana. Schurman Machine Works builds 4″, 6″ and 8″ stub and table edgers, as well as single, double and 3-drum hoists. They also build the "Log-Boss" bucking and log haul machines as well as pond and deck saws.

The Seattle and Spokane offices of Star Machinery will promote the above equipment.

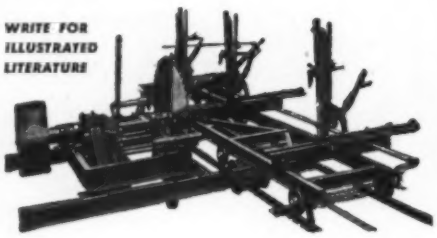


The new Allis-Chalmers HD-15 tractor.



The new Allis-Chalmers HD-9 tractor.

WRITE FOR ILLUSTRATED LITERATURE



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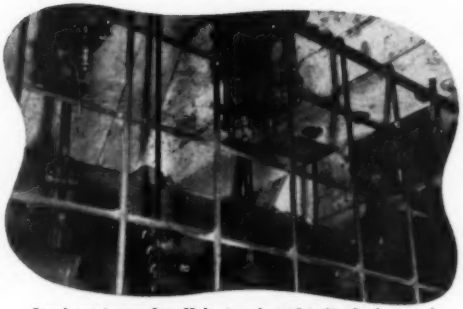

Lumber trimmer has Valvair solenoid individual control valves mounted at operator's platform.

VALVAIRS Serve Dependably and Long on Lumber-Trimming Machinery

Again and again, lumber companies in the Pacific Northwest and elsewhere re-order Valvair air-control valves. Liked features: unrestricted air flow through valves; rugged construction that *lasts;* no metal seats; unique "OU" packers seal more efficiently; repacked without disturbing piping; standardized body permits literally many thousands of combinations.

IMPORTANT: Valvair design protects more fully against flying sawdust. Let us tell you why.

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Power Transmission Products (Division Portland Iron Works), Portland 9, Ore.

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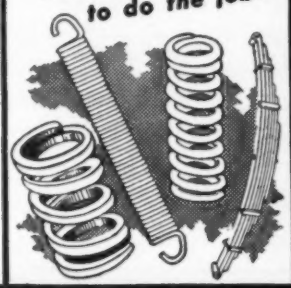

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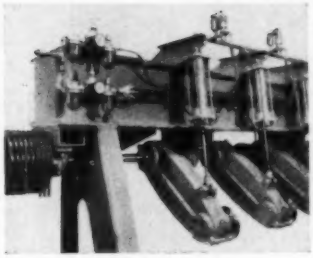

Shown herewith is a Portland Iron Works trimmer with Valvair controls shown on the left end of the equipment.

Valvair Valve

A recently developed air valve available for a great variety of pneumatic applications to be found in the timber industry is manufactured by the Sinclair-Collins Valve Co. of Akron, Ohio, and is known by the trade name "Valvair." The valve is made in five sizes, ¼", ⅜", ½", ¾" and 1", and are produced in two-way, three-way, and four-way types with both open and piped exhaust ports.

Some of the popular applications of the Valvair valve in mill machinery have been actuating cylinders of selective trimmers, controlling the roll lift on gang edgers, and controlling skid lifts, transfers and kickers.

Valvair control valves are distributed in Oregon by Power Transmission Products, a division of Portland Iron Works, Portland; in Northern California by Bearings & Transmission Products, Eureka, and in Washington by Pump Engineering Co. of Seattle.

Named Distributors

Goodyear Rubber & Asbestos Co., Portland, have announced their appointment as distributors for Chesterton-Belt-Flo. This product is said to increase pulling power up to 50% when applied to a belt. Belt-Flo is used successfully by mill operators everywhere. It does not collect dust or dirt, will not harden or glaze, is waterproof and contains neither resin, asphalt or oil. It is non-inflammable and non-poisonous.

Dodge-Timken pillow blocks recently installed on the Vee belt drive to one of two Stetson-Ross planers in the planing mill of the McCloud River Lumber Co., McCloud, Calif. Dodge-Timken pillow blocks were also recently installed on the bottom shaft of a Yates-American rip saw in the McCloud River planing mill. Says J. Van Keuren, planing mill foreman: "Adding these Dodge pillow blocks saves oiling and greasing, and the shafts are always aligned. With babbitt bearings alignment can change with wear."

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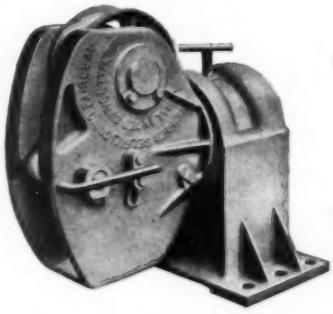

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Machine fastens solid to Band Mill.
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Pine Prices

Following Delivered Prices, based on Past Sales, were reported to the WESTERN PINE ASSOCIATION by members during the period November 20 to December 2, 1950, inclusive. Both direct and wholesale sales are included and are based on specified items only. Two districts are given, one being the State of Illinois, outside of the Chicago Metropolitan district, and the other the State of Pennsylvania. Quotations follow:

PONDEROSA PINE

	1 x 8"		5/4 RW	
Selects S2 or 4S	Illinois	Pa.	Illinois	Pa.
C. Select RL	$240.50	$237.90	$276.38	$265.12
D. Select RL	182.73	204.50	220.90	237.26
Shop S2S	No. 1		No. 2	
5/4	.....	146.59	.....	141.42
6/4	164.50	148.50	124.75	114.55
Commons S2 or 4S	No. 2		No. 3	
1 x 8" RL	141.00	126.72	103.66	99.35
1 x 12" RL	129.50	134.50	102.27	105.92
4/4 No. 4 Common S2 or 4S RW&L				83.21

IDAHO WHITE PINE

Selects S2 or 4S	1 x 8"		6/4RW	
Choice (C) RL	267.50	271.72	.....	.....
Quality (D) RL	225.36	233.75	.....	.....
Commons S2 or 4S	Colonial		Sterling	
	No. 1		No. 2	
1 x 8" RL	.....	161.50	146.50	151.50
1 x 12" RL	.....	192.00	154.73	159.15

SUGAR PINE

Shop S2S	No. 1		No. 2	
5/4	.....	180.50	.....	145.50
6/4	.....	180.50	.....	145.50
8/4	.....	195.50	.....	155.50

LARCH-DOUGLAS FIR

# 3 Common S2 or 4S	1 x 8" RL	89.53
# 1 Dimension	2 x 4" RL	102.75
# 1 Dimension	2 x 6" RL	102.67

Southern Pine Prices

	B&B	C	D
1 x 4 Std. Flg. V.G. PE	210.00	195.00	163.00
1 x 4 Std. Flg. Fl. Gr. PE	195.00	185.00	138.00
1/2 x 4 Std. Ceiling	185.00	175.00	158.00
1 x 6 Std. Drop Siding	206.00	196.00	148.00
	No. 1	No. 2	No. 3
1 x 6 Std. Bds. & Shiplap	143.00	94.00	84.00
1 x 8 Std. Bds. & Shiplap	143.00	99.00	91.00
1 x10 Std. Bds. & Shiplap	148.00	99.00	91.00
1 x12 Std. Bds. & Shiplap	173.00	103.00	87.00

No 1 Dimensions S4S

	12'	14'	16'	18'	20'
2 x 4	104.00	105.00	107.00	117.00	117.00
2 x 6	99.00	100.00	101.00	101.00	112.00
2 x 8	101.00	99.00	99.00	107.00	109.00
2 x10	109.00	110.00	110.00	118.00	121.00
2 x12	115.00	115.00	115.00	126.00	131.00

No. 2 Dimension S4S

2 x 4	97.00	98.00	100.00	110.00	110.00
2 x 6	89.00	90.00	91.00	100.00	102.00
2 x 8	94.00	92.00	92.00	100.00	102.00
2 x 10	95.00	97.00	96.00	102.00	104.00
2 x 12	95.00	95.00	95.00	104.00	112.00

2 x 4 No. 3 Dim. R/L	82.00
2 x 6 No. 3 Dim. R/L	77.00
2 x 8 No. 3 Dim. R/L	77.00
2 x10 No. 3 Dim. R/L	76.00
2 x12 No. 3 Dim. R/L	73.00

Douglas Fir Plywood

1-4 inch basis ..... $105-$114

Red Cedar Shingles

Perfections (Drv)

No. 1	$12.50-13.00
No. 2	7.00- 7.50
No. 3	5.25

XXXXX (Dry)

No. 1	$10.00
No. 2	7.50
No. 3	5.00

Log Prices

Following prices have been quoted F.O.B. rafted in the Willamette River:

No. 1 Fir Peelers, generally $110.00, occasionally to $120.00. No. 2 Peelers, generally $90.00. No. 3 Fir Peelers, $70.00 to $80.00.

Douglas Fir Saw Mill Logs—No. 1, $70.00; No. 2, $50-52; No. 3, $40-42.

Hemlock—Selected Peelers, $60.00.

Hemlock Saw Mill—Peelers and No. 1, $50.00; Hemlock No. 2 and No. 3, now $36.00 to $40.00.

White Fir—Same as hemlock or $1.00 less.

Noble Fir Peelers, $60.00 to $70.00, otherwise same as white fir.

Cedar—Shingle, $40.00-$45.00; lumber, $80.00-$90.00.

Spruce Peelers—No. 1, $90.00-$100.00; No. 2, $70.00-$80.00; No. 3, $60.00.

Spruce Saw Logs—Same as Douglas fir.

Spruce Pulp Logs—Same as Hemlock.

Douglas Fir Wood Logs—No. 1, $20.00; No. 2, $10.00.

Douglas Fir Prices

1x4 B and BVG Flooring	$170-175
1x6 C&Btr. Drop Siding	155-160
1x6	$90-$85
1x8	80- 85
1x10	80- 85
1x12	82- 87

No. 1 Common Timbers and Plank

3x3 6-20	$81-$86
3x3 22-24	84- 89
3x3 26-32	87- 92
3x10 6-20	72- 77
3x10 22-24	75- 80
3x10 26-32	78- 83
4x4 6-20	76- 81
4x4 22-24	79- 84
4x4 26-32	82- 87
6x6 8-20	72- 77
6x6 22-30	75- 80
6x6 32-40	84- 89
8x8 8-20	72- 77
8x8 22-30	75- 80
8x8 32-40	95-100
6x10, 8x10, 8-20	72- 77
6x10, 8x10, 22-30	75- 80
6x10, 8x10, 32/40	95-100
10x10, 12x12, 8-20	72- 77
10x10, 12x12, 22-30	75- 80
10x10, 12x12, 32-40	95-100
Douglas Fir Cross Ties	45- 50

No. 1 Dimension (Green)

2x4 6-24	$63-$68
2x6 6-24	62- 67
2x8 6-24	62- 67
2x12 6-24	61- 66

Sel. Merch. (Green)

1x4 6-20	$75-$80
1x8 6-20	80- 85
1x12 6-20	85- 90

U. K. Hardboard Imports

Upwards of 200,000,000 square feet of hardboard has been imported into England during the past year according to statements made at a recent meeting of the Wallboard Importers, Distributors and Merchants Association.

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Forest Mensuration—by Bruce & Schumacher	3.50
Forest Products—by Nelson Brown	5.00
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Forest Valuation—by Chapman and Meyers	6.00
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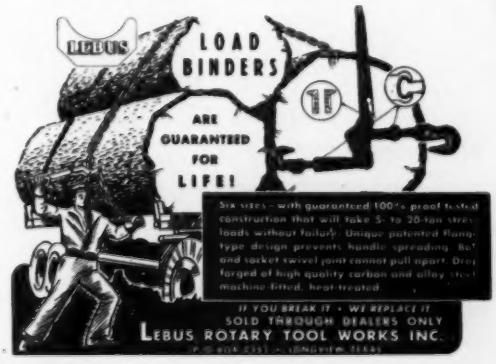
Wood Preservation—by Hunt & Garrett	5.00
Forest Protection—by Hawley	2.75
Wood Technology—by Brown-Panshin-Forsaith	6.00

Yearly subscription to The Lumberman for $1.50 United States and Canada (Foreign $2.50 with purchase of any of these books.)

CASH WITH ORDERS

THE LUMBERMAN

71 Columbia St., Seattle 4, Wash.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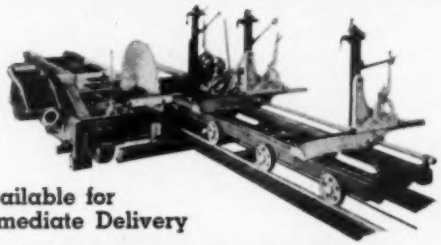

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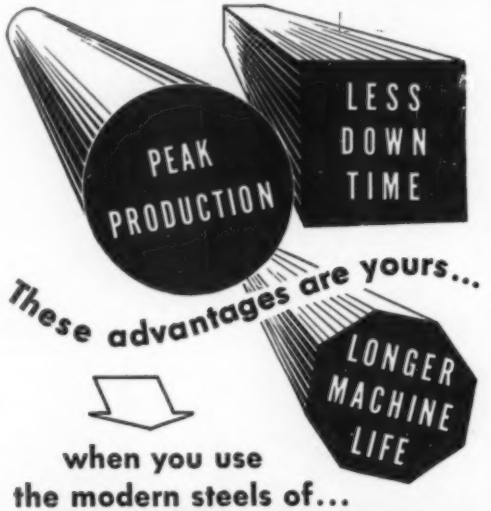

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Wood Preservation—by Hunt & Garrett	5.00
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Properties Affecting the Bonding of Douglas Fir Plywood With Synthetic Resin Adhesives—by J. D. Beatty	.35
Commercial Timber of the United States—by Brown & Panshin	5.00
Timber Engineering Handbook—by H. J. Hansen	10.00
Wood Technology—by Brown-Panshin-Forsaith	6.00

Yearly subscription to The Lumberman for $1.50 United States and Canada (Foreign $2.50 with purchase of any of these books)

CASH WITH ORDERS

THE LUMBERMAN
71 Columbia St., Seattle 4, Wash.

Osgood and General Excavator Distributors Named

The Osgood Company and The General Excavator Company announce the appointment of The Western Equipment Company, of Portland, Eugene, and Roseburg, Oregon, as Distributors of Osgood and General excavators, log-loaders and material handling machinery in the state of Oregon, and the southwestern border counties of Washington.

Mr. Andrew E. Vanstrom, president, and Mr. Marshall W. McCann, secretary-treasurer, direct the activities of this well known equipment distributing company.

The Portland branch, located at 2244 N. W. Savier Street, under the direction of Mr. Vanstrom, offer their ample sales and service facilities to present and future Osgood and General users in the northern counties of Oregon, and the southwestern border counties of Washington.

Mr. McCann is in charge of sales and service activities at the Eugene branch, which is located at 1360 West First Avenue. Their territory covers the southern counties of Oregon, including half of Lincoln County, Benton, half of Linn, Deschutes, Crook, Harney and Malheur, and counties south.

Mr. Vanstrom and Mr. McCann have both had wide experience in the contracting and logging industry machinery field, and head up a competent staff of sales and service personnel to handle the modern Osgood and General lines. Present models include a variety of machines, such as Shovels, Log Loaders, Draglines, Clamshells, Cranes, Hoes, from ⅜ to 2½ cubic yard capacities. These are available on crawlers, on motor trucks, and as the self-propelled, rubber-tired MOBILCRANE. The MOBILCRANE was engineered by the Osgood and General Companies specifically for the logging industry.

Larger sizes of Osgoods and Generals, from ¾ cubic yard up, feature air control, and the use of patented Air Cushion clutches, for smooth, shock-reducing operation and longer lived machines.

Many developments have been made recently in the log loading machines, such as slack kickers, slack pullers, and air controlled loading tongs.

The Western Equipment Company also maintains a branch warehouse at Roseburg, Oregon, on Pacific Highway 99, North.

Radio Specialty Mfg. Co. Awarded Big Contract

Notice of awarding of bids from the U. S. Forest Service for various units of radio communication equipment has recently been received by Radio Specialty Mfg. Co. of Portland, Oregon. The total amount of the contract is approximately $100,000 and involves 114 of the company's standard "Packmaster" portable FM radio units, 20 repeater stations, and 36 dual-channel 25 watt mobile units.

Bids on this equipment were submitted in competition with five of the nation's largest radio manufacturers.

The "Packmaster" portable unit was designed this year by Radio Specialty as an entirely new and original type of portable FM communication unit. It was first placed on the market and made available to commercial lumber operators in June of this year. The new unit was submitted to Forestry Service laboratories for inspection and met all the rigid requirements without alteration.

Also meeting Forestry Service bid requirements and involved in the recent contract award, was the local firm's newly designed dual-channel 25 watt mobile unit.

James A. Bardsley Named Vice President of Trailmobile

James A. Bardsley, general manager of the Pacific Coast Division of The Trailmobile Company, Berkeley, Calif., has been elected vice president, according to

J. A. BARDSLEY

a recent announcement by President George M. Bunker.

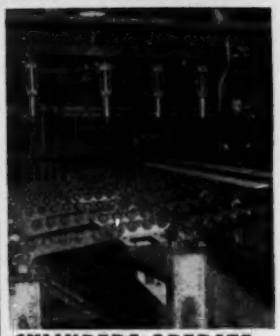
Mr. Bardsley joined The Trailmobile Company in 1944 as branch manager in Indianapolis and, since that time, has witnessed the company's sales triple in dollar volume and seen it become the second largest trailer manufacturer in the country. In July, 1949, Mr. Bardsley was sent to the Pacific Coast as sales manager of Trailmobile's western operations.

Since taking over the West Coast operation, Bardsley has effected many changes in the production, servicing and sales of Trailmobile trailers. Sales and service outlets have been more closely integrated to provide faster and better servicing. Factory production facilities have been enlarged by the installation of new equipment so that, today, Trailmobile's Berkeley plant is equipped to cope with any West Coast operator's trailer problems. Expansion plans also call for a new sales and service branch in Oakland to service the entire Bay Area.

New Salem Equipment Catalog

Announcement has been made by the Salem Equipment & Supply Co., Salem, Oregon, manufacturers of sawmill machinery, that they have a brand new 32 page catalog off the press. The size is 8 x 10 with loose leaf pages. The equipment is elaborately illustrated. Copies will gladly be sent on request.

Ledeen cylinders improve the job



CYLINDERS OPERATE BRIDGING SECTIONS OF LUMBER SEPARATOR

Illustration shows lumber separator and grading table behind #2 resaw at Booth-Kelly Lumber Company, Springfield, Oregon. Here the graded boards are separated into 5 segregations depending on subsequent processing required for each board. Bridging sections of the separators are actuated by 4 Ledeen Air-Operated Heavy Duty Cylinders, shown suspended from cross beam at far end of separator.

Standard Ledeen cylinders and mounting attachments are available from distributors' stock in major cities. Special cylinders on order.

Write for New Bulletin 500.

There are Ledeen *Medium Duty*, *Heavy Duty* and *Super Duty* cylinders for air, oil or water operation ready to help you, wherever you have to push or pull • lift or lower • press or squeeze • tilt or turn • open or close

Ledeen Cylinders are Good Cylinders • Ledeen Cylinders are Good Cylinders • Ledeen Cylinders are Good Cylinders • Ledeen Cylinders are Good Cylinders •

Ledeen Mfg. Co.
1604 S. San Pedro St.
Los Angeles 15, Calif.

Buda Logging Installations In B.C.

Buda diesel engines have been finding favor in British Columbia woods for a good many years, but this winter more of them than ever will be giving service in the lower mainland and on Vancouver Island. Simson-Maxwell Ltd., Vancouver, B. C. distributors for the Buda Co., have thirty-two 200 h.p. Buda diesels on order, mostly for the logging industry.

In addition, there have been several recent installations, such as the 280 h.p. Buda super-charged unit on a Hayes truck owned by Neil Duncan, formerly trucking for Jones Logging Co. and now for Bloedel, Stewart & Welch at Great Central; two similar models that have been taken by Western Forest Industries, one for its Meade Creek camp on Cowichan Lake and the other for the C.P.S. camp at Jordan River. Seven more have been ordered by the Alaska Pine Co. for its various operations, five of them for Hayes trucks and two for Pacific Truck & Trailer trucks.

Several Buda engines have been installed on yarding units, most of them equipped with Gearmatic transmissions, manufactured by Gearmatic Co., Vancouver. Alaska Pine Co. has two Buda 8DC1125 yarder engines of 250 h.p., delivered to its Pioneer Timber Co. subsidiary at Port McNeil. The same company has taken two Model 6DA844 Buda 210 h.p. yarding engines, Gearmatic equipped, to serve Westminster Iron Works yarders.

Sunrise Logging Co. at Minstrel Island, operated by Dan Sawchuck, has ordered an 8DC1125 diesel equipped with Gearmatic for a 250 h.p. yarder, this being a conversion job from steam.

Advance Logging Co. at Tofino has powered a new Westminster Iron Works yarder with a 6DAS844 Buda diesel 280 h.p., with Gearmatic transmission. Lane Logging Co. on Phillips Arm has an 8DC1125 250 h.p. Buda diesel installed on its yarder, with Gearmatic equipment, this being a conversion from steam, too.

A 200 h.p. Buda marine diesel has been installed on the tug Elsie, operated by the towing subsidiary of the Sereth lumber organization.

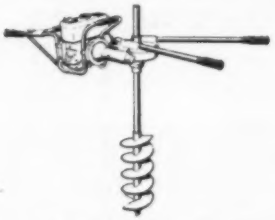
During the last week in October, Ray Burton, from the Buda factory, conducted a school in Vancouver for logging and other engineers interested in Buda motive power, and displayed the 280 h.p. supercharged Buda diesel and other cutaway models.

McCulloch Post Hole Attachment

Foster Power Saw Co., of Eugene, Oregon reports that another of McCulloch Motors Corp., products is making great headway in sales to the loggers.

The new McCulloch Post Hole Digger Attachment for adapting to the present Model 5-49 McCulloch Chain Saw is being purchased by several loggers for drilling holes in sled runners for making donkey sleds. This unit is made at the factory for earth drilling with 6", 9" and 12" Augers available. The only change from earth drilling unit to sled making is to install a ship auger of the desired size on the attachment and you have a unit which will run in any position and will drill any size log. Also, you have the regular chain saw with desired blade and chain length for cutting the timbers and cross-members of the sled on the spot. The only change from a chain saw to a drilling unit is the removing of one bolt which takes less than two minutes. Several of the regular earth drilling units have been sold to loggers for building fences on their land and farms.

Foster Power Saw Co. reports they are making immediate delivery of these units at the present time.



New McCulloch Post hole attachment.

Liquidating Astoria Mill

The Bader & Carroll Co., Portland, is liquidating the O'Brien sawmill at Astoria, Oregon. It comprises a complete 9' band mill with all accessory equipment. The mill site is being cleared to make room for the new Astoria Plywood plant. Clyde Carroll is manager of Bader & Carroll Co.

Takes Lima Log Loader

Booth-Kelly Lumber Co., Springfield, Ore., recently took delivery of a No. 802 Lima log loader through the Feenaughty Machinery Co., Portland, Oregon, distributor. This is the second machine of this type to be used by Booth-Kelly Lumber Co. It is powered with a Waukesha gas engine.

The new silicone-insulated, portable, a-c welder, equipped with automatic "Hot Start" control just announced by the Welding Divisions of General Electric's Apparatus Department. Known as 6WK30J series it is one of the first standard a-c welder lines commercially available incorporating silicone insulation. Instant arc striking without any manual adjustment is provided by "Hot Start" automatic control. The correct amount of boost is always furnished for any specific current setting.

Cummins Diesels for B. C. Loggers

Several big Cummins diesel units have gone into the woods in British Columbia to meet a variety of logging requirements.

Comox Logging & Railway Co. has a new 550 h.p. Cummins powering a yarder at its Headquarters operation on Vancouver Island, and a similar model has been delivered to Hillcrest Lumber Co. at Mesachie Lake to be used for a new type of yarder mounted on a series of solid railroad wheels, and it is expected that this machine will be in operation early in the new year.

Powell River Co. has taken a 400 h.p. Cummins diesel to its big new Juskatla camp on the Queen Charlotte Islands to replace an old Westminster yarder. B.C. Forest Products Ltd., has a 400 h.p. engine repowering a Washington yarder at Vancouver Bay, and at the Holberg logging operation of B.C. Pulp & Paper Co. a 400 h.p. Cummins diesel is being used in the conversion of a Washington yarder.

A 400 h.p. Cummins diesel to power a Shay locomotive for Canadian Forest Products Ltd., with Twin Disc torque converter, two speed and reverse gears, is still being assembled at Tyee Machinery Co., Vancouver, and will probably be going to the Nimpkish Valley early in 1951.

Plywood Plant Improvements

Simpson Logging Company's plywood Division, plans extensive improvements to its plant at Shelton, Wash. Major new installations will be a dryer and lathe. A new building, 40x200, is under construction to house new equipment.

ESCO Ups Latimer at Seattle

Wilson V. (Bill) Latimer, assistant manager the past few years of the Seattle branch of Electric Steel Foundry, has been promoted to the position of Seattle Branch Manager. Latimer will replace J. E. McQuaid who has been called into the home office at Portland, Oregon.

Latimer was first employed by Electric Steel Foundry in 1942 when he joined

W. V. LATIMER

the Production Control Department at Portland. He held the position of Manager of that department for four years before going to Seattle in 1947 to serve as assistant manager.

The Seattle branch serves the Pulp and Paper, Logging and Sawmill, Construction and general industries in an area extending north to Canada, west to the Coast, east to the Cascade Mountains and south to include Lewis County.

Machinery Personals

Lee Smith & Son Co., Eureka, California, recently had an open house celebration of moving into new commodious quarters at 432 West Clark Street. . . . (opposite the stump house). This firm among many nationally known lines of sawmill and logging supplies are dealers for Titan chain saws.

G. H. Ohler of *Automotive Products, Inc.*, Portland, recently made a six weeks visit to Europe. Some of the points visited were England, Ireland, Frankfort, Germany, and the automotive show in Paris, France.

J. T. Sullivan, District Manager, International Harvester Company, Motor Truck Division, Portland, announces the appointment of *Homer Cathey* as Branch Manager of the Portland Motor Truck Branch. Mr. Cathey assumes the duties formerly assigned to Mr. Warren A. Tegan who has been transferred to Tacoma, Washington, in the same capacity.

Waldo J. Mordini, recently promoted by Caterpillar Tractor Co. to the position of Western Division engine sales representative, has been specially assigned to work with Caterpillar distributors in western logging areas, it is announced by *B. L. Hagglund*, Western Sales Manager. In his new capacity, Mordini will specialize in yarder and loader applications in addition to assisting in other power problems relating to the logging industry.

Appointment of *R. G. Overpack* to the newly established position of assistant service manager of Caterpillar Tractor Co.'s Western Division is announced by H. D. Welch, Western Division service manager. The new assistant service manager resides in San Leandro with his wife and two children.

LeRoy M. Johnson who has been active in The Dalles area for the past 8 months as Interstate Tractor and Equipment Co.'s Sales Manager, has been appointed store manager.

Appointment of *Robert F. Moody* to assistant sales manager in the Eastern Division is announced by C. H. Collier, Jr., area sales manager of the Hyster Company of Peoria and Danville, Illinois, and Portland, Oregon. Moody will make his home in Peoria.

L. R. Harshman, field engineer for the Chapman Chemical Company, Memphis, Tennessee, has been transferred to Columbus, Ohio. Harshman, who was graduated from the University of Michigan—School of Forestry in 1939—will service sawmill, millwork, wood treating plants and pest control operators for Chapman in Ohio, Indiana, Michigan, West Virginia and western Pennsylvania.

Announcement has been made by Zidell Machinery & Supply Co., Portland, who are Oregon distributors for Reed-Prentice power saws, that they have appointed Haley Supply Co., 2645 Roosevelt Blvd., Eugene, Oregon, as distributors in the Eugene area. Hayden Haley, the owner of this business, is an experienced logging equipment salesman and knows the trade in that area.

Large Scale Reseeding and Planting

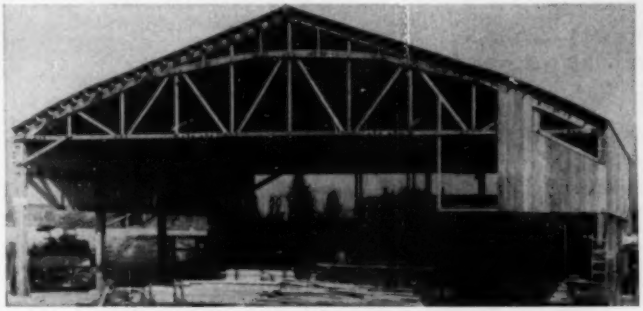
Oregon state forestry officials have announced that this group's second year of reforestation work on the Tillamook burn area will start as soon as a favorable break occurs in the weather. Baiting for rodent control will precede planting as several days are required for the bait to take effect. Helicopter seeding was anticipated to cover a 5000-acre tract adjacent to the one seeded last year. A 2500-acre tract will be planted by hand.

A large section in Clatsop county will also be seeded this year. This is to involve about 8000 acres of airplane seeding and 2500 acres of hand planting.

Union Wire Opens Thirteenth Branch

The thirteenth in its network of branch offices and warehouses has been opened at 1341 Vega Street in Jacksonville, Florida, by Union Wire Rope Corporation. Mr. George Golay, who has represented the firm in Southeastern territory, is now district manager. Mr. Melvin Hass, graduate of Kansas University and Union's laboratory and mill training school, has joined the Jacksonville sales staff and is assigned to the Carolinas, Georgia and Alabama territories.

Other transfers of Union Wire Rope sales personnel takes Mr. D. E. Bedford to Eastern Pennsylvania and New York territory from Iowa and Nebraska where he has served several years.



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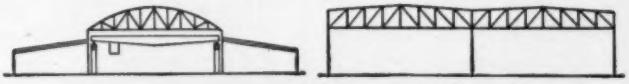

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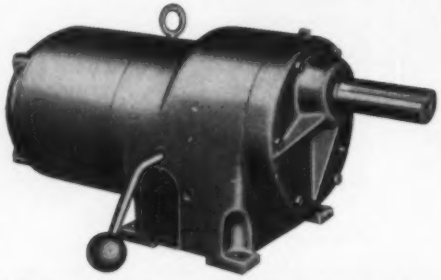

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E. C. Atkins & Co., Inc., Seattle, Portland, San Francisco
Henry Disston & Sons Co., Seattle, Portland, San Francisco
R. Hoe & Co., New York, Portland, Seattle
Jones & Orth Cutterhead Co., Seattle, San Francisco
Klamath Machinery Co., Klamath Falls, Ore.
Ohio Knife Company, Seattle, Portland, Oakland, Cincinnati, Ohio
Pacific Saw & Knife Co., Portland
Simonds Saw & Steel Co., Fitchburg, Mass.
Wapakoneta Machine Company, Wapakoneta, Ohio, Seattle, Portland, San Francisco

SAWMILL ERECTION
Ward, M. A. Construction Co., Eugene, Ore.

SAWMILL LAYOUTS AND INSTALLATIONS
Walter F. Mitchell, Eugene, Ore.

BUYERS GUIDE and CLASSIFIED SECTION

SAWMILL MACHINERY

Albany Machine & Supply Co., Albany, Ore.
Armstrong Manufacturing Co., Portland, Ore.
Bader & Carroll, Portland
Corley Mfg. Co., Seattle, Portland, Chattanooga
Crown Machinery & Supply Co., Portland
The Enterprise Co., Columbiana, O.
Gardner-Denver Co., Peoria, Ill., Seattle
General Machinery Co., Portland
Irvington Machine Works, Portland
Johnson Engineering Works, I.W., Tacoma, Wash
Kent Machine Co., Cuyahoga Falls, Ohio
Klamath Iron Works, Klamath Falls, Ore.
Klamath Machine & Locomotive Works, Klamath Falls
Klamath Machinery Co., Klamath Falls
Mater Machine Works, Corvallis
Marten Co., M. W., Klamath Falls
McDonough Mfg. Co., Eau Clair, Wis.
Mereen-Johnson Machine Co., Minneapolis
Milwaukee Machinery Co., Portland
Monarch Forge & Machine Works, Portland
Newman Machine Co., Greensboro, N. C.
Northwest Marine Iron Works, Portland
Oilgear Co., The, Milwaukee, Wis., Portland, Corvallis
Peters Co., The, Portland
Portland Machinery Co., Portland
Salem Equipment & Supply Co., Salem, Ore.
Schurman Machine Works, Portland, Ore.
Skeen Electric Works, Portland, Ore.
Soule Steam Feed Works, Meridian, Miss.
Star Machinery Co., Seattle, Spokane, Portland
Sumner Iron Works, Everett
Ward Construction Co., M.A., Eugene, Ore.
Webster Machinery Co., Seattle
Wheland Co., The, Chattanooga, Tenn., Portland.
West Salem Machinery Co., Salem, Ore.
Western Machinery Co., Portland, Ore.
Zidell Machinery & Supply Co., Portland, Ore.
Zweifel, Geo. E., Portland

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Hyster Co., Portland
International Harvester Co.
Kay-Brunner Steel Products Co., Los Angeles, Portland, Seattle
Oliver Corp., Cleveland Tractor Div., Seattle, Portland, San Francisco
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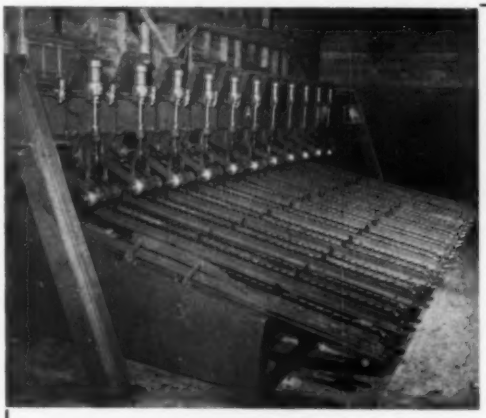
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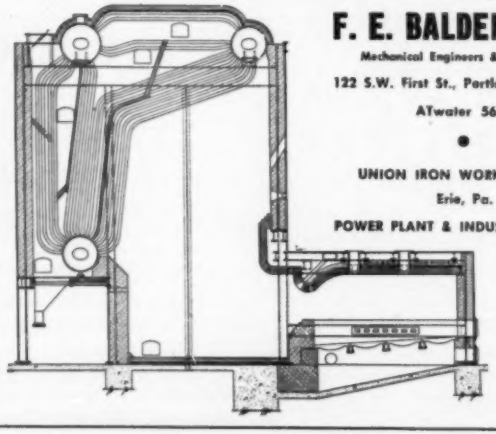

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Eastern wholesale lumber corporation, well rated, and with controlled sources on West Coast, requires a man to open and manage a Chicago sales office. Applicant must be well grounded in West Coast woods, have had considerable selling experience, and know how to develop business in a new territory. A knowledge of the Chicago trade would be helpful but not entirely necessary.

This position will pay a fixed salary in addition to a profit sharing arrangement. Prospects for earnings limited only by man's ability and willingness to work.

In reply state age, education, experience and previous employment. Also when available.

This is a fine opportunity for a high grade man. All replies kept in strict confidence. Please reply to TL Box No. 750, c/o THE LUMBERMAN, 71 Columbia Street, Seattle 4, Wash.

POSITION WANTED

Experienced lumberman open for position as sawmill foreman or primary superintendent. Twenty-eight years in large mills of Texas-Florida-Arizona and California. Prefer large mill but would consider smaller mills. Can take care of manufacture and grades, either pine or hardwood. Best of references. Wire or write: Edgar L. Weir, Kirbyville, Texas, Phone 2252.

POSITION WANTED

Logging superintendent, fifteen years experience in cat and truck logging desires connection with a reliable company. Familiar with cats, trucks, shovels and etc., clean cut or Forest Service cutting methods. Road marking and construction. Qualified to take complete charge. Please reply to TL Box No. 748, c/o The LUMBERMAN, 71 Columbia Street, Seattle 4, Wash.

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*Have run less than one year.

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*Excellent Power Plant for small mill.

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1 9' Western R. H. roller bearing (new).
1 Berlin No. 41 6x15 4-knife planer (cheap).
1 No. 150R Covel band saw grinder.
1 Irvington RH Auto-selective trimmer 0-30'.

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1 Portland Iron Works 4"x30" with table.
1 Evergreen 6"x46".
1 Port. Iron 12"x60" L.H. with Motor.

STEAM AND FEED ENGINES

1 7x9 Marion twin, direct.
1 Brownlee 6"x8" twin, direct connected.
1 Vulcan 8½"x8" geared with drum.
1 Speed-E-Twin with drum.
1 Western 12"x42' shotgun (new)
Erie Engine 8x12 Single
1 12"x16" P & H geared feed.
1 50 HP Skoon electric carriage feed.

DECK EQUIPMENT

2 8"x10"x60" oscillating nigger.
1 12"x36" Port. Iron turner cyl.

USED MOTORS (Partial List)

1 300 HP, 600 RPM, slip ring, 440-V.
1 300 HP, 720 RPM, slip ring, 440-V.
1 200 HP, 720 RPM, sq. cg., 440-V, New.
1 150 HP, 900 RPM, sq. cg., 440-V.
1 150 HP, 720 RPM, sq. cg., 440-V.
1 150 HP, 1800 RPM, sq. cg., 440-V.
1 75 HP, 720 RPM, slip ring, 440-V.
1 75 HP, 1800 RPM, sq. cg., 440-V.
1 15 HP, 720 RPM, slip ring, 440-V.
1 50 HP int. diesel power plant.

MISCELLANEOUS

4 Inserted tooth 28" saws.
1 30" Straight knife grinder.
1 Portland Iron Works power setworks, new.
1 Berlin self-feed table rip saw.
1 Diamond No. 35 Hog.
1 Diamond No. 45 hog.
1 Diamond No. 65 Hog.
1 Mill 12" slab woodsaw complete.
1 4 block 72" Sumner screw block.
1 #3 Reeves drive.
1 5-ton, 30' boom electric stiff-leg crane.
1 16' Circ. Sawmill complete.

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No.'s H-78, H-82, H-130, H-124, H-480.
Roller chain, ¾" to 2" pitch.

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LUMBER CARRIERS

2 Gerlinger, Model 6-L, six wheel Carriers.
1 Ross Model 90, 45″ x 60″, 7:50 x 20 Tires.
1 Hyster Yardmaster, 45″ x 60″, 9:00 x 20 Tires.
2 Gerlinger, Model 4 MH Carriers, 7:50 x 20 tires.

PLANERS AND MOULDERS

1 Berlin #109, 6″ x 10″ with profile.
1 Berlin #94, 6″ x 15″.
1 Newman #44, 4″ x 4″ ball bearing electric moulder.
1 Berlin #196, 30″ jointer.

MACHINE TOOLS

1 American 30″ x 30″ x 12′ Planer, 1 head on rail, motorized.
1 Reed 24″ x 7′ centers standard change lathe, 4 Jaw chuck and steady rest.
1 Wolcott quick change engine lathe, 18″ swing, 128″ between centers, 11½″ swing over carriage, taper attachment, steady rest, face plate, 4-speed Do-all drive with 3 HP, 1200 RPM motor.
1 American 18″ x 84″ centers back geared O.C. engine lathe, motor drive, 3 jaw and 4 jaw chucks, taper attachment.
2 Jones and Lamson turret lathes with tools.
1 Cincinnati #3 Hi Power plain milling machine, motorized.
1 Brown & Sharp #1 Universal Milling Machine.
1 Cincinnati Bickford 36″ drill, back geared, reversible, No. 5 taper.
1 Floor type ½″ capacity drill press with ¼ HP motor.
1 20″ Ohio Shaper with Lima drive, motorized.
1 Keckley 200 Ton Horizontal Hydraulic Press, double bars.

EDGERS

1 Portland Iron Works 5″ x 48″ RH 5 saw edger.
1 Portland Iron Works 6″ x 48″ RH 4 saw edger, 75 HP direct connected motor.
1—Peters 6″ x 48″ anti-friction bearing hydraulic shift RH edger.
1—Allis-Chalmers 6″ x 24″ RH 2 saw pony edger.
1—Newport 4″ x 34″ RH 3 saw edger.
4″ x 44″ 3 saw edger, ball bearing, V belt drive.

SAWMILL MACHINERY

Sumner 6″ x 24′, 13 saw Air Trimmer.
Filer & Stowell 48″ opening R & P 3 block all steel carriage. Ball bearing wheels, Prescott air dogs. Trout setworks.
Sumner 72″ opening 3 block carriage with Trout #4 set works, trucks and track.
Two 48″ opening rack and pinion head blocks with ratchet type hand set works.
Three 54″ opening screw type head blocks with dogs.
Headrig—Top and bottom saw arbors for 52″ saws, anti-friction bearings.
1—3 arm stop and loader with 10″ x 20″ steam cylinder.

AIR COMPRESSORS

Ingersoll-Rand 2 cylinder water cooled vertical air compressor, 9″ bore by 8″ stroke, 310 cu. ft. per min. 100 lb. pressure at 575 RPM (max.).
Ingersoll-Rand 210 cu. ft. 2 stage, air cooled skid mounted, gas motor powered, air compressor.
Horizontal single cylinder water cooled air compressor, 7½″ bore by 6½″ stroke, 65 cu. ft. per min. at 400 RPM double flywheels, 36″ dia. by 5″ face.
Leyner 12″ x 14″ two stage water cooled belt driven air compressor, 70″ x 12″ flywheel.
Leyner 16″ x 18″ two stage water cooled belt driven air compressor, 90″ x 17″ flywheel.

RESAWS

1 Trojan Circular Resaw, power feed rolls.
Yates #354—54″ twin horizontal resaw. Can be converted to single.
#256 circular rip saw, 44″ x 66″ table. Power feed rolls.
Filer & Stowell 72″ vertical resaw with new top wheel.
1 set tilting feed rolls for Mershon 54″ resaw.

STEAM ENGINES

Allis-Chalmers 20″ x 20″ twin direct drive carriage feed engine.
12″ x 15″ Twin Ball and Ball 60″ x 16″ flywheel.
12″ x 15″ Ames side crank. 60″ x 15″ flywheel.
6″ x 8″ side crank, 26″ x 6″ flywheel.
8″ x 10″ twin Erson & Brantingham carriage feed engine.
Lidgerwood 4 drum steam hoist.
11″ x 13″ Willamette 3 drum hoist.
8¼″ x 10″ twin log haul engine, single drum.
7″ x 9″ geared carriage feed engine.
4½″ x 5″ twin Marion engine.
Soule Spee-D-Twin Engine with carriage feed drum.
10″ x 12″ Sumner Twin Engine.

ROAD OILING EQUIPMENT

1 Circulating Oil Distributor.
1 Farquar 20 HP boiler, skid mounted.
1 Commercial Iron Works Retort.
1 Austin Power Patrol Grader.
1 Austin Pull Grader.

MISCELLANEOUS

1 Greenlee #228 Mortiser.
1 300 Amp. Lincoln Electric Welding Machine.
1 GE portable electric welder, motorized.
1 Westinghouse 200 amp. electric welder.
2 Elwood Electric platform trucks.
1 Clarkette #6 truck tractor.
4 Heavy duty pedestal type grinders.
1 Small 2 drum American Hoist.
1 Hyster double drum yarding winch for D-8 Caterpillar tractor.
1 66″ double extended firebox donkey boiler.
1 Le Roi 2 drum Hoist.
1 #25 Diamond roller bearing hog—50 HP direct connected motor.
1 #40 Diamond Hog complete with coupling and motor.

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Specials

1 320 cu. ft., 4-cyl., air-cooled, Davey air compressor
3 25 kva, 480/240-120, G. E. Pyranol transformers
6 75 kva, 2400/480-240, Pacific transformers
1 Centrifugal, boiler feed pump, Worthington, 200 gpm, 230 lbs.—50 hp, 440 volts

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1—#510 Newman 16" x 8" Planer & Matcher.
1—#512 Newman 16" x 8" Planer & Matcher.
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SAW MILL EQUIPMENT

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1—American #1 Saw Mill.
2—American Porto-Mills.
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1—14" x 42' Filer & Stowell Shotgun Feed.
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1—8' Union Anti-friction Band Mill.

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1—52" Turner Tilting Single Band Resaw.
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1—84" Prescott, 150 HP motor.
1—42" Turner Single Band Rip Saw.

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1—#WA-85 Onsrud Automatic Shaper, 72" table.
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1—#100 Bell Vertical & Horizontal Motor Driven Boring Machine.
1—Yates B-2 30" 4-knife round head Double Surfacer.
1—Woods #36M Ball Bearing Double Surfacer, 8 x 30".
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1—Used double drum friction hoist 30" wide drums, 3¾" shafts, capacity 1200', 1" cable.
4—Small used friction hoists, capacity 400' ¾" cable.
1—48" 3 screw headblocks carriage with electric set works and 56 ft. 35# V and flat carriage track.
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1—Complete portable mill on wheels, sawyer operated carriage & edger.
4—Used double drum hoists.
700' good used H-78 Malleable chain.

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Cunningham Sawmills—
Precision Roller Bearing
For accurate cut, salvage and portable mills. Assembled on wheels if required.
Timken roller bearing trucks.
All anti-friction husk and belt feed works.
Air dogs—Predetermined electric set works with sawyer control.
New motors and starters. Large line gear head motors.
Roller chain sprockets and chain.
Ball and roller bearings.
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Malleable chain and sprockets.
EDGERS—22" to 48".

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All steel frame, 12" channel.
Roller chain driven, with double cut sprockets.
6—10" x 20" pipe rolls x 24'
7—10" x 20"
4—10" x 30"
7—10" x 30"
6—12" x 30" pipe rolls with 4 jump skids 25' long miter gear driven.
4—12" x 24" pipe rolls x 18' miter gear driven.

USED CHAIN
1000'—# 82 plain.
250'—#678 Link-Belt rivetless.

ROLLER CHAIN—ALL SIZES

USED MOTORS
100 HP 600 RPM G.E.
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40—7" kiln trucks 7" wheels.
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40,000'—1" black pipe † & c.
1600'—35# rail.
1 complete set of instruments.

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2—300 AMP Lincoln welders.
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SAWMILL EQUIPMENT
Log Stop & Loader 18 x 24 AC cylinder.
14" Simonson turner with lift skids.
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60"—4 block rack & pinion carriage.
54"—3 block screw carriage—AC setworks.
Cant flipper 12 x 21 steam cylinder.
#4 Hammer hog.
1—F & S head block 72" complete.
1—4 x 9 Levi Huston square head moulder.

MISCELLANEOUS
1—5 Saw Lamb gang bolter saw.
1—Cavel hand gummer
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1—Willamette Model CP-7 lumber carrier
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1—Norris safe 2' x 3' x 6'.
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1—Jarecki 2½" to 6" pipe machine.
1—Williams 4" pipe machine.
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One General Electric 3000 KW, 3600 RPM, Curtis Type Turbine. Direct connected Generator 2300/4000 Volt, 3 Phase, 60 Cycle, 135# Steam Pressure. Turbine is complete with Jet Condenser, pump and piping, Switchboard, Meters and other equipment. Generator rotor rewound in 1947 and turbine is in good operating condition.

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2—Model 90 Ross Carrier, 52x67 package.
1—Model 12X Ross Carrier, 42x48 package.
1—Model 11 Ross Carrier, 42x48 package.
1—Hyster Utility, Hercules motor, 42x42 package.
1—Model 70 Ross Carrier, 52-54 package.
1—Model 70 Ross Carrier, 42x48 package.

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Berlin No. 91—20x6, 8 Knife Planer and Matcher, New Feed Table, 100 HP Motor and Starter, Ripping Attachment.
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New Knife Balance Scales.

125 HP 1200 RPM 3/60/440V Slip Ring Motor with Controls.
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1—Log Haul Drive Assembly complete for 1½x8 chain (no chain).
1—Log Stop and Loader 5 15/16x32 4 arm 16x30.
2—Heavy Duty Belt Driven Canting Gears.
1—Allis 9 ft. RH Band Mill.
1—Filing Room Complete for above mill.
1—Allis Carriage 3 block 72"—screw type.
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1—Shop made automatic random length trimmer, 11 saw, prefabricated package unit, available for immediate delivery.

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1—Lane cast iron frame top and bottom arbor, 54".
1—Top arbor only, complete with bearings—2 11/16"x84".
1—Bottom arbor only, complete with bearings—2 15/16"x88".
1—Top and bottom 60" circular.
3—New American Top saw rigs.

DECK EQUIPMENT

1—3 arm log stop and loader
1—8"x10" oscillating Hill type Steam Nigger.
1—Belt driven cable log haul.
4—Belt driven overhead canting gears.

CARRIAGES

1—3-block rack and pinion, 48" opening. Anti-friction bearings, 2 sets trucks.
1—Filer & Stowell—3-block 44" rack and pinion steam setworks. (Can furnish hand or electric setworks). With rails.
1—Wood frame—16' long—3 screw blocks 60" opening, 4 sets wheels, 12" diameter, 2 15/16 axles, rope and friction drive setworks.
1—Wood frame—16'—3 rack and pinion b'ock—50" opening, hand set, spring receder, 4 sets wheels, with 1 flat rail and 1 V-rail.

CARRIAGE FEEDS

1—F & H 10"x12" twin direct drive with 20"x15" drum for 3/4" cable.
New Soule Twin Engines.
1—Used Soule 5x6 Twin Engine.

EDGERS

1—Wheland 8"x96" L.H. 7-saw table type.
1—Wheland 4"x34" L.H. 3-saw table type.
1—Prescott 8"x60", 4-saw Pac. Cst. stub type.
1—Diamond 8"x96", 8-saw Dbl. table type.
1—Tower 3"x27", 2-saw table, new.
New Tower 5"x42", 3-saw table type.
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ROUTERS

1—Unit—Portable Router.
1—Kelly—heavy duty with stair attachment.
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Large stocks available.

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2—Tower, new, 2-saw, 20'.
New Irvington automatic and selective random length.
Used 43C Irvington 11 saw.

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New "All Steel" No. 35, No. 45, No. 60.

WOODWORKING EQUIPMENT

BAND SAWS

1—Davis & Wells 20"—1 H.P., 220/440 V.
1—American 36", V-belt drive with 2 H.P. motor.
1—American 32", V-belt drive.

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1—Monarch Unipoint Model X36A, 5 H.P., 3-60-220/440 V. motors with tables. New.
1—Comet, Model J—1 H.P., 3-60-220.
1—Dewalt, 1½ H.P., 100-220 volt.

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1—Davis & Wells 1.5 H.P., 220/440 V.
1—Shopmade Single Spindle, 2 H.P. Motor.
1—F & E double spindle, motor driven, 5x7½ H.P., 3-60-220/440.

JOINTERS

1—Crescent 8" round head.
1—Berlin 16" round head.
1—American 8".

SANDERS

1—Yates-American No. 12 Column Sander.
1—Berlin Royal Invincible 72"—3 roll spiral.
1—Yates No. 401, 36", 3-Drum Roll Feed. Motorized.
1—6" Motorized Shop Made Belt Sander.
1—No. 27-6 Jefferson endless belt sander.

MOULDERS

1—Woods No. 131 9 "X6", 4 head, round head, complete with motor.
1—American 6"x15" babbitt bearing 4 head belt drive.
1—Huston 4x6, 4 HD 2 knife sq. HD, good condition.
1—American No. 3 4x6 HD sq. BD. Rebuilt.
1—Levi Huston 4x8 round BD. Rebuilt.
1—Yates 109, 6"x10" moulder, 4K, with top and bottom profiles with hoods, belts, jointers and motors.

PLANERS

1—American No. 226-6K, 8"x24" planer.
1—Woods 404B-8K, 6"x15" motorized sideheads, top and bottom profile, feed table and motor.
1—Woods No. 10 heavy duty, 12"x30" sq. hd., rebuilt.
1—Berlin No. 41, heavy duty, 14"x30" sq. head, rebuilt.
1—American Sweepstakes, 6"x36" sq. head, with motors, belts, hoods and blower.

FEED TABLES

New G.M. Co.—all steel—ball bearing.

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1—Berlin No. 241—54" band resaw, babbitt bearing, complete filing room.
1—American No. 4 Circular—24" Saw.
1—Yates No. 341—54" band.
1—American No. 6 circular.

SAW TABLES

2—American No. 1 Variety.
1—American No. 1 double end trim saw—8" to 78"
1—American No. 11—Saw and dado machine.
1—New Darra James 12" tilting arbor.
1—Greenlee No. 451 saw and dado machine.
New Foster tilting arbor 8" table saws.
New American tilting arbor, 8".
New American tilting table, 8".
New Shopmaster tilting table saws.
1—Bentle Push rip-table, 36x80 with 7½ H.P. motor.

SURFACERS

1—Crescent 6"x24" — 4 knife — round head — belt driven.
1—Smith 8x24" single surfacer with 7½ H.P. motor

SASH AND DOOR

1—American U14 sash clamp.
1—Motorized equalizer saw
1—Pitch Seam cutter.

MORTISERS

1—New Britain chain mortiser.
1—American hollow chisel mortiser.
1—R. & H. rellisher and mortiser.

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1—Newman single end tenoner with motor.
1—Hayes double end tenoner with motorized copes, cutoff saws and tenoner head, 7'3" arms with 25 H.P. motor.

BOX FACTORY EQUIPMENT

2—Fisher Bar board matchers.
2—Woods semi-automatic box board cutoffs.
1—Doig—12-track—51"—open back.

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- IRVINGTON Cut-off Saws, Trimmers and Automatic Trimmers.
- HEAPS Oscillating Log Gangs —also edgers and Circular Resaws.
- TOWER Edgers and 2-Saw Trimmers.
- DEPENDABLE Knife Grinding Equipment.
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- MILWAUKEE Electric and Air Tools.

RIP SAWS

1—Yates No. 281—44" band rip saw.
1—Sinker—Davis—self feed with gang arbor.

IRVINGTON SAWS — Used

6—Irvington motorized, 28" to 52" long with 14" x18" blade.
1—Irvington No. 25 cutoff saw with 3 H.P. motor.
1—Irvington No. 4 contractors saw.
1—Irvington No. 3 cutoff saw.
1—Irvington No. 12 Portable Electric saw.
1—Irvington No. 35 cutoff saw with 3 H.P. motor.

SAW FILING & KNIFE GRINDING MACHINERY

1—Washington—12" to 66" capacity. Rebuilt
2—New Glose—12" to 72" capacity.
1—Dependable 102-A.
1—Blackmer No. 141 12" to 72" capacity.

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1—Covel No. 139L 4" to 12"—Rebuilt.
1—Covel No. 160E 4" to 16"—Rebuilt.

STRETCHER ROLLS

1—Glose 16"—New.
1—Glose 8"—Belt Driven—Motorized.

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1—Woods No. 227M—motorized sidehead grinder.
1—Covel 32"—12" Cap—Rebuilt.
1—Covel 42"—12" Cap—Rebuilt.

NEW KNIFE & CUTTER HEAD GRINDERS

Dependable No. 98A 36" Cup wheel knife grinder, motorized
Dependable No. 99A 36" Cup wheel knife grinder, motorized.
Dependable No. 101A head grinder, motorized for heads up to 6" long 8" diameter.
Dependable No. 102A head grinder, motorized for heads up to 12" long 6" diameter.

AIR COMPRESSORS

1—Ingersoll Rand portable on 2-wheel pneumatic tired trailer, gas driven, 100 cu. ft. at 100 pounds pressure.
1—Brunner with 2 H.P., three phase motor and tank, water cooled.
1—Ingersoll Rand No. 100, gas driven portable on steel wheel cart.

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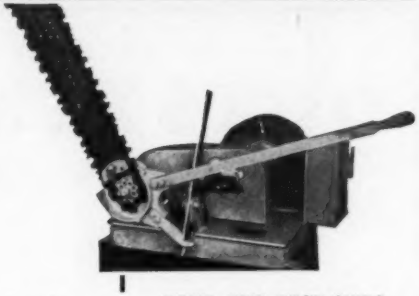
BLUE BABE

BARGAIN BUYS in USED MACHINERY



1 7-ft. Clark Band Mill rebuilt.
1 10-ft. Allis Band Mill.
1 8-ft. C-type Allis Ball Bearing Band Mill.
1 11-ft. Allis Chalmers B-type Band Mill.
1 84" Mershon Resaw, left hand.
1 Allis-Chalmers Pacific Coast Type 78" Carriage 4-block, 8 sets trucks, 16 wheels, 3-7/16" axles, 4 sets Allis Offsets, No. 4 Trout setworks. Steel carriage frame.
1 54" Allis R & P Headblocks, Trout Set.
1 6" x 54" Ball Bearing Stub Edger.
1 Bradley Power Hammer, 80-lb.
1 200 HP, 514 RPM, 60-cycle, 2300-volt, sq. cage motor and starter.
1 Lodge & Shipley Lathe, 14" x 5', quick change.
1 No. 45 Diamond Hog.
2 300 KW Generators, 120 volts, DC, New.
1 Baby Simondson Log Turner, 2 Cylinder, New.
1 S.A. Woods #404B 6 x 15 P & M 5-knife round heads, double profile and feed table.
1 Yates C-1 10" Heavy Moulder, 6 heads.
1 Gardner Denver Compressor, 65 ft. Cap.
1 Gardner Denver Compressor, 125 cu. ft.
1 1000 KW Allis Chalmers Steam Turbine.
1—14 x 18 Allis Camel Back Geared Steam Feed.
1—16 x 18 Sumner Geared Steam Feed.
1 #65 Diamond Hog.
1 12" BT & B RH Band Saw Grinder.
1 6" BT & B RH Band Saw Grinder.
1 Lot of Used Chain, All sizes.
1 Lot of Cast Pulleys.
1 Used Line Bar Rip and Split 54" Band Resaw, complete.
1 Lath Bolter, 5 saw.
1 Lath Stripper, 6 saw.
1 Veneer Lathe, St. Joe, size 48" x 66".
1 75 HP Slip Ring, 600 RPM, 440 volt Motor.
1 80 ton Overhead Bridge Crane, 59 ft. span, 58 ft. lift.

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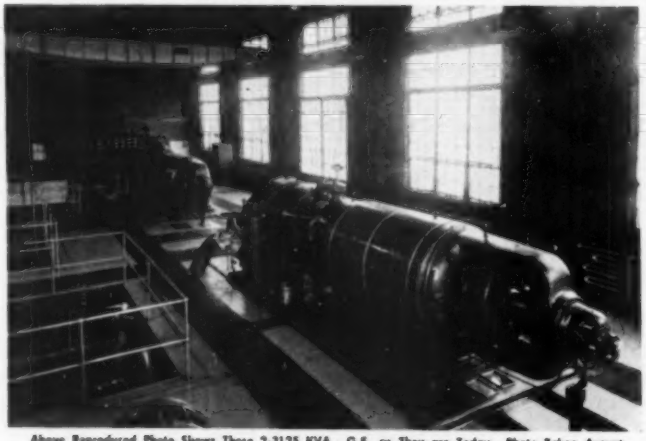

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2—2000-KW. G.E. Cond.
1—1000-KW. G.E. Stored Seattle

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1—456 HP Erie Vertical water tube 250 lbs. ASME Code
1—72"x18' Cade Hor. Tubular 150 lbs.
1—Atlas 11"x14" center crank engine
1—14x18 H S & G sidecrank, 96x20 pulley LH
2—9x10 Ames City crank engine
1—10x12 Ames City crank engine
1—13x16 C&T Twin engine 70x20 pulley
1—16x20 H S & G twin engine
1—11x13 Willamette twin engine

NEW WORTHINGTON COMPRESSORS

1—new Worthington M25 142 cu. ft. compressor, 3-stage air cooled, 25 HP motor, V-belt drive
1—new Worthington M40 194 cu. ft. 40 HP V-belt drive
Complete stock of smaller new Worthington compressors.

PUMPS

Complete stock new Worthington Centrifugal Pumps
1—new Worthington 3x2x3 Duplex
1—new Worthington 3½x2¼x4 Duplex
1—new Worthington 4½x2¾x4 Duplex
1—new Worthington 5¼x3½x5 Duplex
1—new Worthington 6x4x6 Duplex
1—used Gardner 6x4x6 Duplex outside center packed
1—used Blake 4½x2x4 outside End Packed (pot valve pattern) 175# steam 350# water pressure
1—used Smith Valle 8x6x8 Duplex 3" suction, 2" discharge

HOISTS

1—4x4½ twin reversing drum 5'x11"
1—5"x6" twin reversing drum
1—7x12 dbl. cyl. reverse throttle, single drum engine
1—8¼x8 dbl. cyl. reverse throttle engine
1—6x6 twin engine, reverse throttle
1—8¼x8 dbl. cyl. sgl. drum hoist
1—new Electric dbl. Drum Hoist, 25 HP DC motor triple Compound, grooved Drums, line speed 40 ft. line pull 18,000 pounds

HOGS AND CHIPPERS

1—Diamond #25 babbitt bearing, steel rotor (used)
1—Brinkley 42" Chipper babbitt bearing, 4-knife 9x11 opening
1—Diamond No. 40 hog, babbitt bearing, 17¾x19" opening, 48" rotor
1—rotor for No. 1 Phoenix hog 43"x23"
1—new Diamond No. 25 Roller bearing hog
1—new Diamond No. 35 Roller bearing hog
1—new Diamond No. 45 Roller bearing hog
1—Mitts and Merrill 15CF Chipper and Shredder, 6-ton capacity, opening 46"x20"
1—Mitts and Merrill No. 10 Paper Shredder, cap. 200#, ⅛"; 400# ¼"

DRAG SAWS

1—Multnomah 7"x44" direct steam
1—new 24" Electric Drag Saw

CARRIAGES

1—new Wheland #7 carriage rack and pinion, woodwork 20', 4½x6 timbers, track centers 54½", 3 blocks, 44" opening with tapers on knees, max. opening with tapers out 47½", std. dogs dbl. acting setworks, spring recede, 2-3/16 set shaft, 6 trucks, 10" V and flat wheels, 1-11/16" axles, 60 ft. 16# V rail, 16# flat rail
1—used Carriage, 3 54" R&P Cl blocks, lightweight, 3 CH dogs, 1 Knight dog, dbl. acting setworks, spring recede, 20' woodwork, 5 trucks, 9" V and flat wheels, 1-15/16 axles track centers, 54"; 75' 16# V track, 75' 16" flat track, woodwork 20' long
1—set 3—54" screw blocks, H6 Portland Iron Works, dbl. I-beam, no plates, 1-15/16 screws, 1-15/16 set shaft, 2 end blocks, taper knees, boss dogs, center block solid knee, hammer dog dbl. acting hand setworks, power recede, 6 sets trucks, 12" steel V and flat wheels, 2-3/16 axles, 60' 30# V rail, 60' 30# flat rail
1—used Carriage, 3—36" Prescott blocks steel frame, truck R.B.
1—Allis 4-block 72" carriage, #5 Trout Set
1—Union 9 ft. RH roller bearing bandmill
1—used Trout #4 Aut. Power Set Works
1—Andrus Power Set Works
1—Simonsen Log Turner 12"x96" cylinder, 4-arm
1—Log Stop, 4-7/16 shaft, 4 arms, 14x17 cylinder
1—Log Stop, 5-7/16 shaft, 3 arms, 18x20 cylinder
1—10 and 12x5 ft. full oscillating nigger
1—Comb. lath bolter and stripper
1—3-saw RH bolter 20" saws
500 ft. #102 sawdust chain
400 ft. 1x6x½ conveyor chain
400 ft. 1¼x6x1½ conveyor chain
200 ft. 1½x6x1½ conveyor chain
new ¾-⅞" and 1" long link conveyor chain

EDGERS

1—new Wheland 3"x34" 3-saw roller bearing
1—new Wheland 4"x44" 4-saw roller bearing
1—used P. I. Works 6"x48" 4-saw stub lever
1—McDonough 8"x60" LH table edger, divided rolls, 4-roll machine
1—3-saw lath bolter, 3 20" IT saws
1—Comb. bolter, 3-saw and stripper, 6-saw, Chrysler 6-cyl. gas motor, self-contained on skid
2—shingle knee bolters, 40" IT saws
1—Shake splitting machine, belt drive

STEAM FEEDS

1—4½x5 twin feed
1—5x6 twin feed
1—new 5x6 SpeeD twin feed
1—6x7 twin feed
1—8¼x8 twin feed
1—10"x42 ft. shotgun feed

RESAWS

1—Berlin #260 30" circular motor driven
1—American 24" circular motor driven
1—Cordesman 30" circular belt drive, cap. 12" vertical, rolls open 8"
1—Cordesman 42" band Resaw, 8" opening, babbitt bearings, 25 HP motor, V-belt drive
1—Marshon 54" LH Vertical band Resaw, tilting rolls, 8" opening, babbitt bearings, 40 HP motor.
1—Marshon 7 ft. LH Vertical Resaw LH quick lever set, babbitt bearings
1—Prescott 7 ft. Heavy Service Vertical Resaw, LH machine RH set, roller bearing motor drive, 200 HP 450 rev. Synchronous, 2200 V motor

PLANERS, SURFACERS & MOULDERS

1—Woods #24 6x15 6-knife Matcher and feed table
1—American 8"x24" 4-side square head Planer
1—Berlin 10"x30" 4-side Sq. Heads, 2 sets sideheads, divided rolls #46
1—American 7" 4-side square head Moulder
1—American #22 10" 4-side square head Moulder
1—American #505 10" 4-side square head Moulder
1—Berlin #177 12"x30" dbl. Surfacer, 3 knife heads
1—F&E 6" 4-side Moulder
1—H&B 8" 4-side Moulder
1—American #4½ 30"x7 2-knife surfacer sec. infeed rolls
1—Berlin 6"x24" 2-knife surfacer, sec. infeed rolls
1—Cordesman 8"x26" 2-knife surfacer, sec. infeed rolls

RIP SAWS

1—Fay and Egan #264 self-feed ripsaw, belt drive, cap. 6" thick
1—Madison #207 straight line ripsaw, 15 HP 3600 motor

PLANER KNIFE GRINDERS

1—used Bridgeport 60" cap. 26x1½ wheel
1—used Dependable #98A-5 30" motor drive
1—new Dependable #99A 36" motor drive, semi-automatic
1—new Dependable #99A 36" motor drive, full automatic
1—new #101A sidehead Grinder, motor drive
1—new #102A sidehead and profile grinder, motor drive

FILING ROOM EQUIPMENT

1—Hanchett 6" LH hand saw grinder
1—Hanchett #207 -8 LH band saw grinder
1—Covel #133 6" RH bandsaw grinder motor drive
1—Covel #130 12" RH bandsaw grinder, motor drive
1—Covel #120 10" LH bandsaw grinder, motor drive
1—new 10" RH motor drive bandsaw grinder
1—Hanchett 12" RH bandsaw grinder
1—Covel #118 16" RH bandsaw grinder
1—Covel #90 16" RH bandsaw grinder
1—Covel #150 RH 16" bandsaw grinder, 88 arbor
1—Covel #736 38" Aut. Cir. Saw Grinder
1—Hanchett #784 84" aut. cir. saw grinder
1—Hanchett #3 Gang Saw Grinder, cap. 28" to 52"
1—Perkins Hand Gummer cap. to 72"
1—new Collis Hand Gummer cap. to 40"
1—Gisse 16" movable roll stretcher

New Cruiser 18 ft. by 6 ft. cabin type, 4 cylinder inboard engine fully equipped. Will trade for sawmill or machine shop equipment. In storage—never launched.

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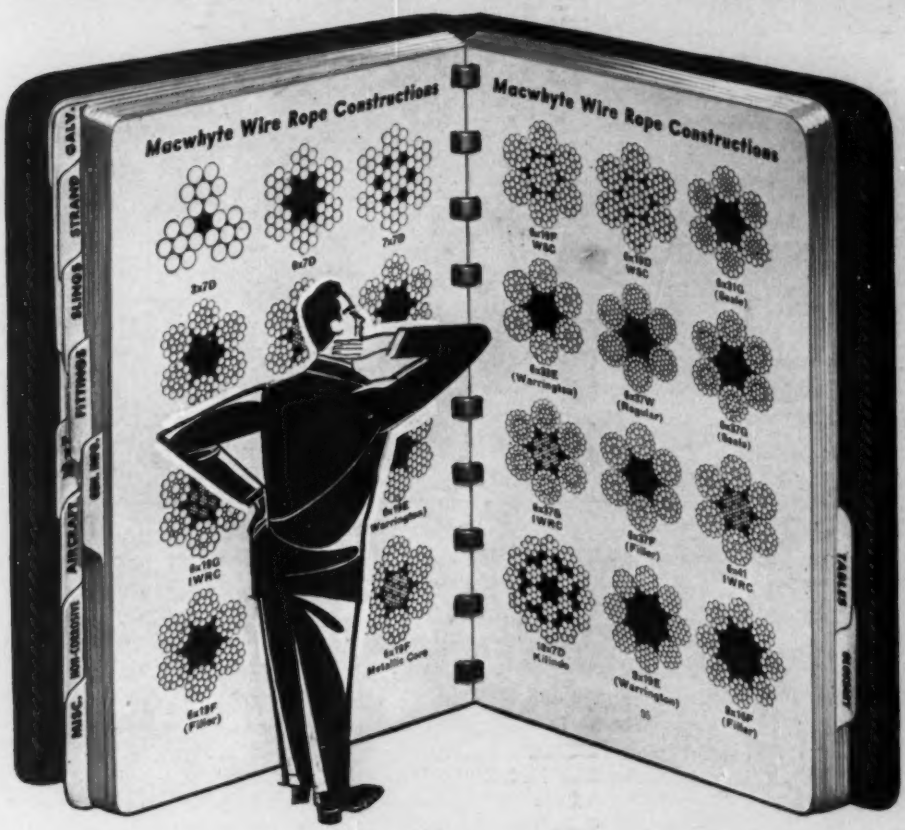

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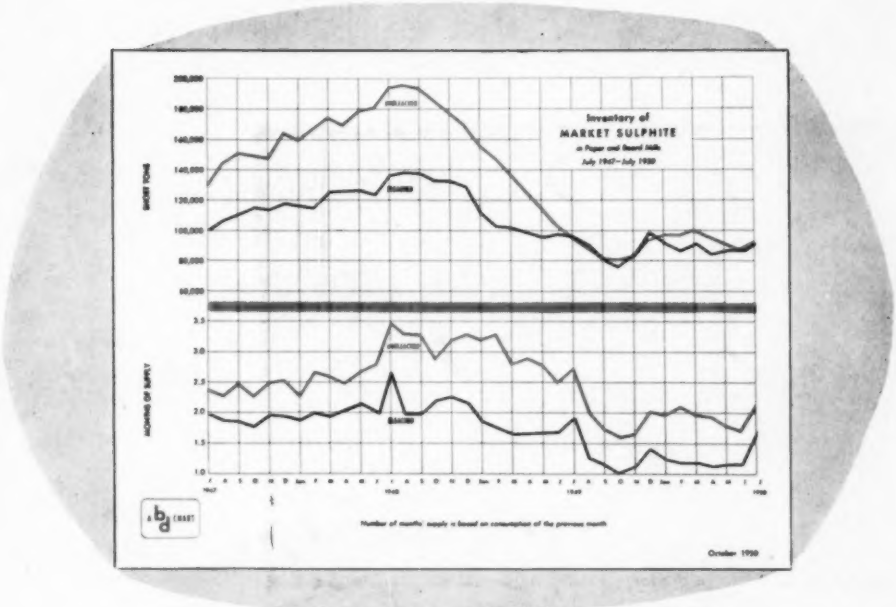

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If your Company is interested in the Wood Pulp market, we shall be glad to send you these charts and other pertinent information which may be of value to you.

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